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NOTICE.—Please address all communications regarding matter for publication, books for review, exchanges, etc., to the Editor, 139 and 141 W. 54th St., New York.

EDITORIALS.

PLEURO-PNEUMONIA AGAIN.—The newspapers at the beginning of the year have brought us the important news that the veterinary press of this country can scarcely overlook. It is to the effect that the Belgian Government has prohibited the importation of live cattle from the United States, on the ground that pleuro-pneumonia is prevalent in this country. And in the presence of such a statement, the veterinary profession of America must feel justified to ask: Is it true? Is it possible that after all the good work so efficiently performed by the bureau of animal industry; after the official proclamation, which announced the fact that this country was free from the disease; after the careful watching which has been carried out at the quarantine stations, of importation—that notwithstanding all these, the profession and the public should have been deceived, and that the disease is yet on our shores, or has been allowed to re-enter the United States.

To the proper authorities we feel that we have the right to apply for information—for positive assurance. It is of too great importance to the value of the work of the veterinarians who have been engaged in the stamping out of the disease, which we all believe they have carried out so successfully, to know

that they were right in their endeavors to protect our live stock, in advocating the wholesale slaughter of cattle—which was done; the re-enforcing of vexatious measures, and the large expenses which were involved in the work carried out by the bureau.

We feel that pleuro-pneumonia is stamped out in the United States; we know it is, and on that account feel that the regulations of the Belgian Government have other reasons for their application besides the one named, “the presence of contagious pleuro-pneumonia.”

What has our chief of the bureau to say about it?

BOVINE TUBERCULOSIS.—The subject of tuberculosis, its presence, and the measures which ought to be applied to control its ever-growing extent, is one which now occupies the attention of all interested in the cattle business. Of its presence and its enormous extent we know pretty well. For years back veterinarians, in their special capacity, either as official State veterinarians or private practitioners, have raised the cry of the danger ahead; and even our journals have in many instances called the attention of the authorities to the danger which was threatened by its presence—and notwithstanding all these nothing was done. All advices were neglected, and free opportunities were left for the disease to extend—and it did—in such a manner that States which considered themselves as comparatively free from it are now obliged to acknowledge that the various percentages which were named and denied then, are unfortunately, correct.

And now preventive measures are the order of the day. The grand result obtained in the management of pleuro-pneumonia is looked upon as possible in the management of tuberculosis. The great differences which exist between these two scourges of cattle, that of their mode of origin, and of contamination, are overlooked. The fact that one is only affecting bovines and is harmless to human beings, while the other is common to both species of living organisms, and is transmissible

from one to the other, and vice-versa—all those seem to be ignored. And yet who does not know that pleuro-pneumonia can be stamped out from bovines, and never be allowed to return if proper measures are taken? Tuberculosis, on the contrary, can never be entirely extinguished, and, at best, the opportunities of its transmissibility to human beings can only be diminished, and that only to a very limited extent, and only also with the possibility of a temporary check to a new extension.

These are the facts, which, no doubt, will render the work undertaken by some States if not useless at least very unpopular and of little advantage; and to that account is due, we believe, the opposition that is met with in Massachusetts to the smooth execution of the work of the cattle commissioners in that State.

From numerous papers which we have received we hear of objections and protestations from various parts of that State to the work, coming from the farmers and cattle owners. The slaughter in Massachusetts, even the test of tuberculin, is objected to, and application is to be made to the legislature to regulate the work in a more suitable manner in the interest of the public at large.

It is not our desire to criticise at present the work recommended by the honorable chairman of the cattle commission in Massachusetts, but we fear that in his enthusiasm, or by higher orders, he is obliged to carry out an undertaking which will not prove as satisfactory as that carried out in the days when pleuro-pneumonia existed in that State.

Doubting, or rather not believing, in the complete eradication of tuberculosis, we are of the opinion that milder measures would bring on as good results, with less expense and with more willingness on the part of the people to assist the authorities in carrying out a work the results of which would be beneficial to all parties concerned.

In advancing this humble opinion of ours, we believe that we will meet with others, who have great doubts of this house-cleaning process as done in Massachusetts. Prof. Law, among

those, has already expressed his opinion in suggesting the enforcement of milder measures, essentially sanitary—and when we consult the writings of European authorities on the subject we find similar suggestions.

EMBARGO ON AMERICAN CATTLE.—We notice an editorial in the November issue of the *Journal of Comparative Medicine* in which the recent action of Germany and Denmark in placing an embargo upon the importation of American live cattle is censured as "uncalled for" and as a retaliatory measure.

We are glad to see these questions of the day discussed in our professional journals, for what we have to say must necessarily be of value in clearing up such controversies. But the editor of the journal, in our opinion, is so wide of the mark in his arguments, that we feel justified in presenting another view of the vexed question.

Thus *The Breeders' Gazette*, the patrons of which are directly concerned in this measure, and a journal which has become excellently posted on such international disputes, has the following to say:

The singular thing about all this hue and cry over Germany's "repressive" attitude toward American products is the fact that certain ignorant people about the capital insist on misinforming the public that it is purely a political move on the part of Germany in the line of retaliation for our differential duty against German sugar. The fact is that no people on earth are so careful as to what they put down their gullets as the Germans. Their government is paternal enough to enforce the strictest laws against the sale of unwholesome and adulterated food products of every kind. We are too "democratic" on this side to pay any attention to the adulterators of food products who are swindling and poisoning us fairly at their will. Germany for years scheduled our pork because it was not inspected for trichinae as all German pork is before being allowed on the market. We blustered about in a manner quite in keeping with our reputation on the other side and charged "discrimination," "protection to German producers" and all such stuff, but had not the sense to institute an inspection of our own so that we could guarantee the wholesomeness of our products to a people who eat pork half raw. Finally, after *The Gazette* had preached such inspection for years, it was instituted and immediately the German barriers against our pork fell. The Fatherland has just scheduled our cattle, and again the cry goes up of retaliation against us. The weaklings who utter this cry do not seem to know that if Germany had wanted to retaliate she would have attacked our pork and not our beef. She can injure us by shutting out our pork, whereas our exports of cattle and beef are com-

paratively insignificant. As a matter of fact the German "vets" have found some disease in our cattle. They would not dare declare it if they had not. What this disease is we do not know. We are certain it is not pleuro; it is not claimed to be; it may be the cornstalk disease; it may be a "ship fever," which exposure at sea encourages. Possibly it is Texas fever, as they say. If so, they simply have yet to learn thoroughly the nature of this peculiar disease, for it will not harm them.

This view comes nearer a practical understanding of our relation to foreign markets. Nothing is more absurd than to explain the execution of laws of other countries by our inbred conception of American politics. In Germany especially, politics has not reached the point where it pollutes the laws existing for the prevention of infectious diseases. True, the agrarian party is pleased with such restrictions, because every member of this party is as high a tariff man as Mr. McKinley. But to accuse them of conspiracy is absurd in the extreme.

So much for an explanation. Let us now examine the reports from Germany. The *Berlin Thierarztliche Wochensehrift*, one of the editors of which is connected with the imperial health office, simply states that State Veterinarian Vollers, in Hamburg, had reported a transfer of American cattle diseased, bearing SUSPICION of Texas fever. In consequence of this reluctant opinion Prof. Schutz, of Berlin, was dispatched, and he took with him some organs of the diseased cattle. After three weeks of investigation he declared the disease Texas fever, and as a result the Imperial Health Office issued the restrictions as prescribed by law. No fuss was made about it in any German journals, because such restrictions are common occurrences.

We believe that if Dr. Salmon would have kept the matter in his own hands and fought it out on scientific grounds, it would possibly be satisfactorily settled by this date. But when the question was allowed to resume a political and diplomatic shape, a settlement may be difficult and far off. One thing sure to us, and that is, that the American veterinary profession has gained nothing by this dispute, as it should have; but as the foreign veterinarians appear to be correct, we rather fear that our reputation as American veterinarians will be impaired for some time to come.—(O. S.)

ORIGINAL ARTICLES.

SOME EXPERIMENTAL RESEARCHES ON THE USE OF MALLEINE.

By PROF. A. LIAUTARD, M.D., V.M.

A paper presented to the Congress of Hygiene at Buda-Pest.

(Continued from page 714.)

RESUME OF THIRTY-FIVE OBSERVATIONS UPON THE EFFECTS OF MALLEINE.

1st Observation. FARCY.—Bay gelding, aged, has farcinous cords on the left hind leg; he is in good condition; temperature on September 25, 1892, at 8 A. M., is 102 3-5°; at 8 P. M., 103°; on the 26th, 103° in the morning, 104° in the evening; on the 27th, at 8 A. M. it is 102°; he receives 2½° cc. of a solution of Roux malleine, prepared according to directions, viz., 1cc. of brute malleine in 9 cc. of carbolized distilled water.*

At 10 A. M.	temperature is 104.	Swelling on the shoulder.
At 12 "	" 104 2-5.	Increased double in size.
At 2 P. M.	" 103 2-5.	Remains the same—horse has slight colic.
At 4 "	" 103.	
At 6 "	" 102 3-5.	
At 8 "	" 102.	On the 28th, at 8 A. M., thermometer register, 102 3-5; the swelling is very large.

The cords have considerably increased since the 25th, and the body is so extensively covered with farcinous ulcers that the horse is destroyed.

This being our first observation, it is possible that the technic of the operation has not been as perfect as it might have been.

2d Observation. ABANDONED BY ITS OWNER.—This is an old horse, owned by a physician, who abandons it as being

* All injections were made on one or the other sides of the neck.

unable to do his work; he is in very good condition. The following is the record obtained in testing the effects of malleine in healthy subjects:

Oct. '92.	14.—8 A. M.	Temperature	99 1-5	8 P. M.,	99 1-5
"	15.— "	"	99 1-5	"	99 4-5
"	16.— "	"	99 3-5	"	99
"	17.— "	"	99 2-5	"	99 1-5
"	18.— "	"	99 1-5—receives 2½ cc. sol. Roux malleine.		
"	" 10 "	"	98 2-5		
"	" 12 M.	"	98 3-5—small swelling.		
"	" 2 P. M.	"	98 1-5		
"	" 4 "	"	99 2-5—swelling quite prominent.		
"	" 6 "	"	99 1-5		
"	" 8 "	"	99 3-5		
"	" 10 "	"	99		
"	19.— 8 A. M.	"	99 3-5—swelling most gone.		
"	20.— 8 "	"	99 3-5—" all gone.		

3d Observation. SUPPURATION OF THE SINUSES AND NECROSIS OF THE PALATE.—A six-year-old horse in horrid condition; having suppuration of the sinuses, necrosis of the palate, two upper molars have been extracted, the horse is poor, unable to eat, starving, turned over to us for destruction. The temperature registers as follows:

Oct. 14, '92.—8 A. M.,	100 4-5	6 P. M.,	100 4-5.
" 15,	" 101 1-5	"	101 1-5.
" 16,	" 99 3-5	"	100.
" 17,	8 A. M., 100	—receives 2½ cc. of Roux malleine.	
" "	99 1-5		
" "	12 "	98 4-5—slight swelling.	
" "	2 P. M.,	99 2-5—swelling little more prominent.	
" "	4 "	99 4-5—	
" "	6 "	100 1-5—	
" "	8 "	100 2-5—smaller and more diffuse.	
" "	10 "	100 1-5—	
" 18,	8 "	99 1-5—almost gone.	
" 19,	8 "	99 —gone.	

4th Observation. GLANDERS AND FARCY.—An old horse, brought to the college clinic with all the symptoms well marked of glanders and farcy:

Oct. 17, '92—at 3 P.M., temperature is 103; at 8 P.M., 102 4-5.
 " 18, " 8 A.M., " 100 2-5; " " 100 4-5.
 " 19, " 8 " " 101 4-5; receives 2 1-2 cc. of Roux malleine.
 " " " 10 " " 102.
 " " " 12 M., " 102 3-5—swelling as large as an egg.
 " " " 2 P.M., " 102 2-5—swelling very large, painful, warm.
 " " " 4 " " 102—large farcinous cords, some of which ulcerate on the 21st.
 " " " 6 " " 102 3-5.
 " " " 8 " " 102 1-5.
 " " " 10 " " 102 1-5.
 " 20, " 8 A.M., " 101 3-5—evening 102.
 " 21, " 8 " " 102 3-5—evening 102 2-5.

5th Observation. SAME HORSE.—Little satisfied with the general reaction, though the local had been enough characteristic, the observation is renewed on the same horse :

Oct. 21, 8 A.M., temperature is 102; at 8 P.M., 102 2-5.
 " 22, 8 " " 101 2-5; " 8 " 100 2-5.
 " 23, 8 " " 101 4-5; " 8 " 101 1-5.
 " 24, 8 " " 101 1-5; receives 2 1-2 cc. of Roux malleine.
 " 10 " " 101.
 " 12 M., " 101 1-5.
 " 2 P.M., " 101.
 " 4 " " 101.
 " 6 " " 101 1-5.
 " 8 " " 101.
 " 10 " " 101.
 " 25, 8 A.M., " 102 1-5; " 8 P.M., 101 3-5.
 " 26, 8 " " 101 2-5.

This time the injection was made on the opposite side of the neck, the swelling became very large, diffuse, warm, painful, and only began to subside after forty-eight hours. It did not suppurate.

This observation evidently coincides with what has been reported by Mr. Nocard. Even if the thermic reaction is missing, the local effects must not be neglected, as means of diagnosis.

6th Observation. CHRONIC SUPPURATIVE SYNOVITIS.—Bay gelding, nine years, in good condition. From a severe traumatism of the left hock, suppuration has developed itself; has been blistered several times; presents no symptoms of glanders or farcy:

Oct. 31, '92 at 10 A. M., temperature 102 ;	6 P. M., 102 1-5.
Nov. 1, " " 8 "	100 4-5 ; 6 " 101 2-5.
" 2, " " 8 "	101 1-5 ; received 2 1-2 cc. Roux malleine.
" " " 10 "	100 3-5.
" " " 12 M.,	100 3-5.
" " " 2 P. M.,	100 4-5.
" " " 4 "	101 2-5.
" " " 6 "	101.
" " " 8 "	102.
" " " 10 "	101.
" 3, " " 8 A. M..	100 4-5. The swelling was very small, and had disappeared the next morning after the injection.

7th Observation. GLANDERS.—An old horse which presents all the symptoms of glanders well marked, gland, discharge, chancres. Admitted November 28, 1892. His record is as follows :

Nov. 28, '92, at 8.15 A. M., temperature 101 4-5 ;	6 P. M., 100 4-5.
" 29, " " 9.30 "	101 3-5 ; receives 2 1-2 cc. Roux malleine on the left shoulder.
" " " 11.00 "	101 3-5.
" " " 1.30 P. M.,	102 4-5.
" " " 3.30 "	104 3-5. This horse has had chills, cold extremities, a very large swelling, painful, which kept on increasing till Dec. 1st, when it suppurred very abundantly.
" " " 5.30 "	105 3-5.
" " " 7.30 "	106.
" " " 9.30 "	105 3-5.
" 30, " " 8 A. M.,	103 4-5.
" " " 11.30 "	104.
" " " 6 P. M.,	103.
Dec. 1, " " 9 A. M.,	104 3-5.
" " " 6 P. M.,	103.
" 2, " " 8 A. M.,	103.
" " " 6 P. M.,	102.

8th Observation. SUPPURATIVE PNEUMONIA.—An old gray horse destined for anatomical work; thin and worn out:

Dec. 5, '92, at 9	A. M., temperature	100;	6 P. M., 100 3-5.
" 6, " " 8	" "	99; receives 2 1-2 cc. of Roux malleine.	
" " " 10.30	" "	98 3-5.	
" " " 12.30	" "	100.	
" " " 2.30 P. M.,	" "	99 3-5.	
" " " 4.30	" "	100.	
" " " 6.30	" "	101 1-5.	
" " " 8.30	" "	103.	
" " " 10.30	" "	103 4-5.	
" 7, " " 8 A. M.,	" "	100.	
" " " 12.30 P. M.,	" "	99 1-5.	

He has had chills and general spasmodic pains, but little swelling which rapidly disappeared. At the post-mortem in the dissecting room, suppurative pneumonia of the anterior lobes of both lungs was the only lesion found.

9th Observation. GLANDERS.—A roan horse submitted to the malleine test by order of the Board of Health; he presents all the symptoms of chronic glanders:

Dec. 7, '92, at 3	P. M., temperature	100;	6 P. M., 100.
" 8, " " 8	A. M., "	99 4-5;	6 " 100 1-5.
" 9, " " 8	" "	100 3-5;	receives 1 1-2 cc. of Washington malleine.
" " " 11	" "	100 4-5.	
" " " 1.30 P. M.,	" "	101;	small swelling.
" " " 3.30	" "	101 3-5;	larger swelling.
" " " 5.30	" "	102 4-5.	
" " " 7.30	" "	103 4-5;	extremities cold.
" " " 9.30	" "	104 1-5;	swelling increasing.
" 10, " " 8	A. M., "	102.	
" " " 6	P. M., "	102 3-5.	
" 11, " " 8	A. M., "	101.	
" " " 5	P. M., "	103.	
" 12, " " 8	A. M., "	102 1-5;	swelling begins to diminish.

10th Observation. SUSPICIOUS OF FARCY.—Young horse, 6 years old, in excellent condition. Two months ago had an attack of maxillary adenitis, from which he recovered. For the last few days a swelling of the right hind leg, extending upwards to the stifle, has appeared, and two small suspicious ulcers on the coronet. He is admitted to the hospital on December 27, 1892, with a temperature of 102 2-5°. On the 28th the

thermometer registers $100\ 3-5^{\circ}$ in the morning, 101° at noon and $102\ 1-5^{\circ}$ in the evening.

On the 29th, in the morning, he receives 1 cc. of malleine from Washington, with the following results:

Dec. 29, at 8 A.M.,	temperature	$101\ 2-5.$
" " 10 "	"	$101\ 4-5.$
" " 12 M.,	"	$102\ 2-5.$
" " 2 P.M.,	"	$103\ 3-5.$
" " 4 "	"	$103\ 3-5.$
" " 6 "	"	$104.$
" " 8 "	"	$104.$
" " 10 "	"	$104.$
" 30, " 8 A.M.,	"	$101\ 3-5.$

The swelling at 2 o'clock was well marked, hot, painful, with lymphatic cords all round the point of injection. At post-mortem glanderous lesions were found.

11th Observation. GLANDERS AND FARCY.—Bay gelding, 6 years old, in poor condition, has a large chancre, a characteristic gland, slight discharge from the nose, and the left hind leg the seat of a farcinous swelling. The diagnosis is positive. Admitted March 2, 1893, with a temperature of 103° , the 3d it is down to 99° in the morning and $101\ 2-5^{\circ}$ at 8 P.M. On the 4th he receives 1 cc. of Washington malleine:

March 4, 8 A.M.,	temperature	$101.$
" " 10 "	"	$101\ 2-5.$
" " 12 "	"	$101\ 2-5;$ small swelling appears.
" " 2 P.M.,	"	$102\ 2-5;$ more marked.
" " 4 "	"	$103\ 3-5;$ very large and painful.
" " 6 "	"	$103\ 4-5.$
" " 8 "	"	$103\ 3-5.$
" " 10 "	"	$103.$
" 5, 8 A.M.,	"	$101\ 4-5;$ swelling larger than yesterday.
" " 8 P.M.,	"	$101\ 2-5.$
" 6, 8 A.M.,	"	$101\ 1-5;$ begins to diminish.

12th Observation. SUSPICIOUS LYMPHANGITIS.—Aged roan gelding, has been very ill with a maxillary adenitis complicated with facial lymphangitis, which has suppurated; now has cords of farcinous aspect upon the sides of the face, with some ulcer-

ated abscesses. He is in good condition; temperature varies between 100° and 102° ; he enters the hospital on March 9, 1893, with a register of 102° at 8 A.M., and receives 1 cc. of malleine from Washington:

March 9, 10 A.M.,	temperature	$100\ 1\cdot5$.
" 12 "	"	$100\ 2\cdot5$.
" 2 P.M.,	"	$100\ 2\cdot5$.
" 4 "	"	101 .
" 6 "	"	$100\ 2\cdot5$.
" 8 "	"	$100\ 2\cdot5$.
" 10 "	"	$100\ 2\cdot5$.
" 10, 8 A.M.,	"	100 .

There is not the slightest local reaction. He made a complete recovery.

13th Observation. SUSPICIOUS GLANDERS.—Bay mare of 6 years, in good condition; for some time has suffered with a thick cough, and has had an intermittent running at the nose mixed with blood. Lately this has reappeared, more abundant and suspicious in character. The animal is playful, and all its functions are normal. Admitted March 18, 1893, with a temperature of $100\ 2\cdot5^{\circ}$, which is the same on the 19th; he receives on the 20th 1 cc. of malleine from Washington:

March 20, 8 A.M.,	temperature	100 .
" 10 "	"	100 .
" 12 "	"	$100\ 2\cdot5$; slight swelling.
" 2 P.M.,	"	101 .
" 4 "	"	$100\ 4\cdot5$; slight swelling, little painful.
" 6 "	"	$101\ 1\cdot5$.
" 8 "	"	$101\ 2\cdot5$.
" 10 "	"	101 ; swelling smaller.
" 21, 8 A.M.,	"	100 ; 6 P.M., $100\ 2\cdot5$; swelling gone.
" 22, 8 "	"	$100\ 1\cdot5$.

14th Observation. FARCY.—Bay gelding, 9 years old, farcy buds on the legs and the side of the body; farcinous swelling under the abdomen; general conditions fair. Admitted April 4, 1893.

April 4th and 5th, temperature in the morning $101\ 3\cdot5^{\circ}$, in the evening $102\ 2\cdot5^{\circ}$; on the 6th he receives $2\frac{1}{2}$ cc. of Roux malleine:

April 6,	8 A. M.,	temperature	103.
" "	10 "	"	102 4-5.
" "	12 "	"	102 4-5; small swelling.
" "	2 P. M.,	"	102 1-5; more marked.
" "	4 "	"	102 1-5.
" "	6 "	"	102 1-5; still larger.
" "	8 "	"	102 4-5; very large, hot and painful.
" "	10 "	"	103 2-5.
April 7,	8 A. M.,	"	104.
" "	10 "	"	103.
" "	12 "	"	103 4-5.
" "	2 P. M.,	"	104 2-5.
" "	4 "	"	104 4-5; respiration short and accelerated.
" "	6 "	"	104 4-5.
" "	8 "	"	105 1-5.
" "	10 "	"	105 3-5.
"	8 A. M.,	"	105; swelling less painful but diffuse.
" "	10 "	"	105.
" "	2 P. M.,	"	104 3-5.
" "	6 "	"	104.
"	8 A. M.,	"	102 3-5.
" "	6 P. M.,	"	104 3-5; horse destroyed, no post-mortem.

15th Observation. GLANDERS AND FARCY.—Old black horse, in poor condition; has farcinous ulcers on the legs, runs at the nose and chancres on the left side. Admitted April 5, 1893, at 6 P.M. with a temperature of 102 4-5°. Receives the next day 1 cc. of malleine from Washington:

April 6,	8 A. M.,	temperature	100.
" "	10.30 "	"	99 3-5.
" "	12.30 "	"	100 1-5; small swelling.
" "	2.30 P. M.,	"	100 2-5.
" "	4.30 "	"	100 2-5.
" "	6.30 "	"	101 2-5.
" "	8.30 "	"	102 2-5.
" "	10.30 "	"	103 1-5; swelling of middle size.
"	7, 8 A. M.,	"	103 2-5.
" "	10 "	"	103.
" "	12 "	"	103 1-5.
" "	2 P. M.,	"	102 4-5.
" "	4 "	"	103.
" "	6 "	"	101 3-5.
" "	8 "	"	103.

April 7, 10	P. M.,	temperature	102 3-5.
" 8, 8	A. M.,	"	102 2-5.
" " 2	P. M.,	"	103 3-5.
" " 6	"	"	102 2-5.
" 9, 8	A. M.,	"	99 4-5; swelling began to diminish.

Post-mortem.—Lungs filled with glandular tubercles; septum nasi and turbinated mucous membrane covered with chancres.

16th Observation. GLANDERS.—Gray gelding, 7 years, good condition, has gland, nasal discharge, one chancre on the septum. Admitted June 6, 1893, with a temperature of 101 3-5° at 12 o'clock at noon and 101 2-5° in the evening. The 7th of June the thermometer registers 101 1-5° and 101 2-5°. The 8th he receives 2½ cc. of German malleine at 8 A.M.*

June 8, 8	A. M.,	temperature	102 3-5.
" "	10.30	"	103.
" "	12.30	"	103 2-5.
" "	2.30 P. M.,	"	104 1-5.
" "	4.30	"	104 1-5.
" "	6.30	"	104 2-5.
" "	8.30	"	104 4-5.
" "	10.30	"	104 4-5.
" 9, 8	A. M.,	"	104.
" "	12	M.,	103 1-5.
" "	6	P. M.,	103.
" 10,	8	A. M.,	103 1-5.
" "	6	P. M.,	102.
" 11,	8	A. M.,	102 2-5.
" "	6	P. M.,	102 1-5.
" 12,	8	A. M.,	101 4-5.
" "	6	P. M.,	101 4-5.

The swelling four hours after the injection measured about three inches in diameter, was hot, painful and did not begin to diminish until the 10th, over forty-eight hours after the injection.

* Prepared in October, 1892; this malleine was given to me by Dr. J. A. Teaut-weller, who has received it from Germany.

(To be Continued.)

OMPHALO PHLEBITIS.

By JOHN L. TYLER, M.D., Chebanse, Ill.

(A paper read before the Illinois State Veterinary Medical Association.)

In essaying to write upon this subject, I do so more for information and to bring out an expression from the profession than with any thought of contributing anything worthy of note.

The disease consists chiefly of an inflammation of the umbilical vein, which often involves the surrounding tissues, followed by suppuration and pyæmia. The inflammation commences soon after birth, and I have noticed in the majority of my cases that there was also persistence of the urachus as a complication. The stump of the cord is swollen, painful and moist, and after the disease is fully developed, a discharge of pus is seen issuing from the navel, and you can also pass a probe high up the vein. The colt is dull, stands with its back arched, and refuses to nurse. The respiration is hurried, the temperature ranges from 103° to 104° F., and there is constipation.

Another complication, which is always or nearly always present, and appears after the disease has been running several days, is arthritis, and usually the hock joints are the ones first attacked. The presence of this complication I am unable to explain, unless it is from thrombi lodging in the joints and producing thrombosis. This might be, as there is always more or less of a thrombotic condition of the omphalic vein, and a little piece being broken off might be carried through the circulation and lodged in the joints and produce this condition. But why the especial selection of the joints? I have found in several post-mortems abscesses in the liver, due, no doubt, to infection through the vein which runs almost direct to that organ; also that the vein was filled with foetid puss, and in some cases I have found symptoms of peritonitis, while in others this symptom was lacking.

The liver is usually enlarged, anaemic and nodulated, and the points that I have opened are filled with thick, creamy pus.

The causes of this disease are numerous, such as irritation

from any cause, exposure to cold and dampness, severing the cord too close to the body ; but the chief cause, I think, to be infection from manure, urine, etc., or from other affected animals. There may be a specific germ causing the disease, but whether or not this is so, I am unable to state, never having experimented any in this line; but this much I am satisfied of, that an affected animal should not be allowed to run with others whose navels have not thoroughly healed.

In the line of treatment, I rely more upon prophylaxis than upon curative treatment.

As soon as a colt is foaled, I instruct my patrons to dust on a little iodoform and to keep them in as clean a place as possible, and I have never seen a case of phlebitis occur after these precautions had been attended to at birth.

Affected animals should be isolated at once and placed in clean, well-ventilated dry quarters.

Antiseptic treatment is indicated throughout the course of the disease. If the vein is closed up at the external opening and puss has already formed, open freely and allow good drainage, and syringe out with hydrogen peroxide.

I have used both moist and dry antiseptic dressings to this part, but I find by experience that the dry ones are the most serviceable. For this dressing iodoform fills all the requirements better than any other ; I have tried boracic and salicylic acids but they are hardly powerful enough.

If a moist dressing is desired, carbolic acid in oil or in form of an ointment is the best one that I know of.

Internally, I usually give aconite combined with a little belladonna to control the fever, but I place more confidence in salicylate of sodium as a curative internal agent than any other. I usually give from 10 to 20 grains at a dose.

When arthritis is present or threatened, I find hot applications to be very serviceable, and when pus has formed I draw it off through a fine canula that I can connect to a large hypodermic syringe, and after doing so I inject into the joint a mixture composed of olive oil $\frac{1}{5}$ and iodoform $\frac{1}{3}$. This mixture

should be heated to a body heat. I sometimes apply a mild blister over the joint after this but not always.

If the constipation requires attention, a little castor oil or tincture of aloes usually suffice, or an injection of warm water.

In case of persistence of the urachus, I single it out, catch it up with an artery forceps, draw it down and ligate it with chromated cat-gut or silk.

REMARKABLE CASES IN PRACTICE.

By S. S. BAKER, D.V.S., Chicago, Ill.

(A paper read before the Illinois State Veterinary Medical Association.)

MR. PRESIDENT AND GENTLEMEN:—The first case I wish to call your attention to, is one that occurred in a seven-year-old driving mare belonging to the Stone Carriage Company.

I was called to see the mare on November 21, 1893, at 9 A. M. and found her suffering with acute indigestion. I gave her a colic draught and repeated it three times, after which the animal appeared to be all right. Before leaving, however, I gave her an ounce ball of aloes. At 11 o'clock that night the owner called me again; when I reached the stable, I found the mare as bad as ever. Gave anodyne drench and advised her removal to the hospital, and she was at once started with the groom, the owner telling me she had been perfectly quiet since I left her in the morning, till just before he called me the second time, but had refused her feed and would drink nothing; she was quite uneasy the rest of the night. After her arrival at the hospital, and in fact was so for three days; the pains were not continuous by any means, but would occur an hour or two apart. Gave opiates, hot water enemas and hot applications to bowels and stomach.

The second day the temperature began to go up slowly, and on the fifth day it reached 102° F., which was as high as it went. But the animal would not eat nor drink. Pulse went to 75° and remained there; it was very small and weak; ears and extremities cold, and could only be kept warm by rubbing and bandaging.

There was no pain after the third day, the patient standing in a very listless way, not noticing anything that went on, and never moving unless she was made to; she still refused to eat or drink. There was not the slightest murmur in the bowels from the start.

After waiting three days to give the bolus a chance to get in its work, and failing to do so, I gave two pints of oil; that was the morning of the fourth day of the attack; that evening gave two pints more. Next morning, the fifth day, there being no motion in the bowels, gave one pint of oil; that evening gave two pints. Next morning could hear no sound; gave another pint, making one gallon of oil and eight drams of aloes she had taken in six days with no results. During all this time I gave physostigma, nux vomica, hyoscyamus and belladonna; repeatedly gave whiskey, sulphuric ether and quinia frequently. You can perhaps imagine my feelings when owner would call up occasionally to know how she was getting along; I could of course give him no encouragement.

About this time Dr. Wilson was in town, and I asked him to advise me in the matter; he said it was a very peculiar case and a very doubtful one. He recommended the administration of powerful stimulants and also oatmeal drenches in the shape of gruel.

I tried the gruel, and got about a quart a day down with the greatest difficulty, the patient absolutely refusing to swallow it. Having poured so much oil down her, I began to fear the consequences in case it ever started, so stopped it. On the eighth day I called in Dr. A. H. Baker in consultation; he thought I had a fatal case, but advised small doses of oil six hours apart. I kept this treatment up till I had two quarts more oil in her, making a gallon and a half of oil altogether. Finally, on the eleventh day of the attack, there being no sound in the bowels whatever, I began giving hypodermic injections of salicylate eserine in one-quarter grain doses every few hours; continued this treatment till noon of the twelfth day, when the bowels began to rumble.

Remember that up to the present time the patient had not eaten a mouthful of anything of her own accord, or drank a drop of water, nor had she laid down since the third day.

There is no need of my telling you that I was about as disengaged a mortal as you could find. Nothing that I had done (and I had done a lot) seemed to do any good, and I wondered why she did not die, still I felt it would reflect on me more to have her die after being in my hospital two weeks than if she had died on the start.

I had tried her with every imaginable kind of feed,—carrots, corn, oats, meal, turnips, apples, cabbages, bread, etc., in fact everything I could think of, and still she would only smell of it and turn away.

I left her at 11 P.M. of the twelfth day, completely dejected and tired of trying to do anything for her, and with my mind fully made up that anything more I gave her would be a waste of material, as nothing could save her.

Her pulse was just about imperceptible, and as she looked at me as I stood rubbing her nose, I thought I had never seen so anxious a countenance before, in fact it made me feel sick.

Her general appearance was of a skeleton, with the hide drawn over it.

As I passed through the kitchen on my way to bed, I saw a raw potato lying on the table; I involuntarily picked it up, went back to the patient, and held it up to her, and what a surprise, instead of turning away after smelling it, she eat it with a great relish. I went back into the house, and filling my pockets with potatoes, returned to the patient, and she eat them all with eagerness. Well I knew the crisis had passed, and I was as happy as I had previously been dejected.

Next morning she eat a little oats and took a drink of water, and that night about 11 o'clock, she passed the first faeces since she was taken sick, making twelve days without eating a mouthful or drinking a drop of water, and thirteen days without a movement of the bowels.

From that time her recovery was very rapid, the owner

telling me a few days ago that since her recovery she has been as hearty and well as ever. I forgot to say that on the eleventh day of the mare's sickness one of the sub-maxillary glands began to enlarge, and on opening it a few days afterwards I got a profuse discharge of pus.

DID I MAKE A WRONG DIAGNOSIS?

For sake of argument, I head my next case as above. This was in a pug dog of about the ordinary size and weight. I was called to see the dog on the 18th of May, 1894.

I found the dog off his feed, coat staring, some pain, nose hot and dry, etc., and diagnosed it as a case of indigestion, and prescribed for that trouble. In a few days I saw him again, and he appeared to be doing nicely, and consequently told the lady that I would not call again unless she telephoned me. About a week afterwards I was called again, the dog showing somewhat different symptoms to what he did before. He could bark as loudly as ever, and jump up into a chair, but could not get down alone, and had to be lifted down.

He seemed to be in great pain at times; he could not walk very well without its hurting him, and when he did he carried a stiff hind leg. He could lie down without any inconvenience or pain, but could not get up very well, and always had to be coaxed; in fact, lying down and jumping into a chair were the only things he could do that did not seem to hurt him.

I examined him very carefully, but could find no soreness, heat or swelling. There was a slight elevation of temperature and a hard pulse.

I diagnosed it as a rheumatic complication, and prescribed for same. He was not eating at all, so ordered him fed with a spoon.

I called again in a few days and found him still unwilling to exercise any, but did not seem to be in so much pain, and concluded that he was doing all right, and told the lady to continue the treatment, and let me hear from her if she wanted anything more.

About three weeks from the time I was first called, I received a very urgent call to the same patient. I found the

pug could not move without the most excruciating pain; he had considerable fever, pulse rapid, small and hard. I also found the lady in tears and the family generally broken up, expecting, of course, the death of the household pet.

Of course I couldn't give them any very great amount of encouragement, and consequently I got hauled over the coals without gloves—they did not hesitate to tell me that they not only did not believe I could save him, but that I did not know what the matter was with him. And, gentlemen, I confess to you, that they were right. I did not know what ailed the patient, but as they were good pay, and I was getting a little warm under the collar on account of their reflections, I made up my mind I would find out what ailed the dog or die in the attempt (that is one of us would die). So laying him on the kitchen table, I made an examination, if I ever did, and with all the manipulations and punchings, I could only find one little spot that hurt him at all, and that was on the left side over the stomach. Still there was no swelling or heat. You could maul him all over and he would not whimper, but put him on his feet and attempt to move him, and his yells were fearful.

After locating the only sore spot on the dog, I decided as I had been told that I did not know what ailed the dog, to cut in over this spot and find out if that had anything to do with it. There being no swelling or heat there, it seemed as though I was pinning my reputation to a very frail hope; but as I could find no other external symptoms, I made up my mind that there was something wrong there, and that I would find the secret if I went for it; so sending for assistance, and the family out of the room, I made an incision over the sore spot, cutting in quite deeply between the ribs, but got nothing; went still deeper, and inserted a probe; on withdrawing it I found it covered with pus; on probing awhile I struck something hard and took it to be a splinter off of a rib. I made a larger incision and inserted my fore finger and could plainly feel something which I still took for a piece of rib, as there was no possibility of anything else being

there. I did not like to make the opening any larger to enable me to be positive of its nature, so inserted a pair of forceps and took hold of the hard substance I had found.

I gave a pull, the dog yelped and I brought out what? A piece of a fractured rib? No! but a hardwood meat skewer, four and one-half inches in length and one-eighth of an inch thick, which I offer for your examination. I did not faint away, nor did I think I had discovered a four-footed skewer factory, but I will acknowledge that I was surprised and relieved; surprised because I did not see how a dog of that size could swallow a log of that length and live; relieved because I knew my reputation was saved.

I called in the family, who were still in tears, to see the pug, who was a good deal more lively than before the operation.

After dressing the wound and putting a bandage around him, I asked for a history of the skewer, and they at once remembered (but had forgotten it when I first asked for a history of the case) that they had seen him with a piece of meat on the skewer a few days before I was first called, and they made a grab for it, fearing that he would swallow it, but the dog grabbed too, and they could not find the skewer, although they did not believe he had swallowed it, but from the sequel he had done so.

The pug made a rapid recovery, but he always growled whenever I went to see him afterwards; he evidently felt that I ought to have helped him sooner, and perhaps he was right.

ACUTE INDIGESTION.

By DR. W. STORY, Princeton, Ill.

(A paper read before the Illinois State Veterinary Medical Association.)

The stomach of a horse is small in proportion to the size of the animal, and digestion takes place quickly. A horse can undergo pretty severe exertion after a hearty meal without showing any inconvenience.

However, the stomach of a horse is liable to derangements, and perhaps the most serious is acute indigestion. It is very

common in this country, especially in the spring and fall, from the continuous hard work and necessarily liberal feeding. It is usually induced by over-feeding, that is, eating too much at a time, more especially when the animal has been tired and hungry. It sometimes occurs from his breaking loose in the night and gorging himself at the corn-bin. Another frequent cause is overloading the stomach with clover or green feed when wet ; this often induces violent and fatal indigestion.

Symptoms.—Digestion may be arrested either by the food undergoing no change, forming a dangerous load, or running rapidly to fruitful fermentation. In the former case the animal is dull and stupid, the pulse is slow and the breathing oppressed. If he have access to water it speedily sets up fermentation ; gas being rapidly evolved the stomach is greatly distended, the belly swollen; colicky pains set in, he rolls about in great agony, looking first to one side then to the other, kicking his belly with his feet, he gets up and down and tosses about in despair. The bowels remain unmoved. The sweat rolls off him in streams, and in many cases death puts an end to his suffering in from eight to ten hours, caused by rupture of the stomach or bowels or inflammation of the intestines.

Treatment.—It is more easily prevented than cured, by simply attending to the following rules : Never let a horse get too hungry; never give him too much at a time; never put him to work on a full stomach and never let him drink too freely after feeding, and we will seldom see this fatal disease. Treatment must be prompt to be effectual. There are various remedies recommended by different practitioners. If there is distension of the abdomen, with gas, puncture without delay, and after the gas has been drawn off inject hypodermically two tablets of No. 631, composed of eserine sulphate, $\frac{1}{4}$ grain; philocarpine mur., $\frac{1}{2}$ grain; strychnine sulph., $\frac{1}{4}$ grain, followed by a cathartic; also stimulants, with judicious counter-irritations, or blankets wrung out of hot water, placed over the abdomen and covered up with a dry one to retain the heat. If there is much pain give belladonna, as it is preferable in most cases.

HOMOEOPATHY IN VETERINARY PRACTICE.

By Prof. C. E. SAYRE, M.D., D.V.S.,

(A paper read before the Illinois State Veterinary Medical Association.)

As the majority of veterinarians have not investigated the history of homœopathy and the principles of *similia similibus curantur*, I shall deviate somewhat from the subject in the first part of this paper and show that the principle of homœopathy was recognized by the earliest writers on medicine. Hippocrates says: "By similar things disease is produced, and by similar things, administered to the sick, they are healed of their diseases. Thus, the same which will produce a strangury when it does not exist will remove it when it does." The learned Dr. Francis Adams, in his translation of the works of Hippocrates, published in 1849 by the Sydenham Society, thus comments upon this passage:

"The treatment of suicidal mania appears singular—'Give the patient a draught made from the root of mandrake, in a smaller dose than will induce mania.' He then insists, in strong terms, that under certain circumstances purgatives will bind the bowels and astringents loosen them; and he further makes the important remark that although the general rule of treatment be *contraria contrariis curantur*, the opposite rule also holds good in some cases, namely, *similia similibus curantur*. It thus appears that the principles of both *allopathy* and *homœopathy* were recognized by the author of this treatise. In confirmation of the latter principle, he remarks that the same substance which occasions strangury will also sometimes cure it, and so also with cough. And further, he acutely remarks that warm water when drank generally excites vomiting, but also sometimes puts a stop to it by removing the cause."*

Evidently Hippocrates had partially proved this drug (mandrake), and found it to produce mania, and had also used

* *What is Homœopathy?* By Dr. Sharp.

it, with good results, in a similar form of mania. It is one of the remedies frequently indicated in delirium, especially of children during teething.

In confirmation of Hippocrates' statement about strangury Dr. Groenvelt wrote a small book on the successful treatment of strangury, and other affections of the bladder, by the internal use of cantharides.* The irritating effect of cantharides on the urinary tract is well known, full doses inducing inflammation, strangury and haematuria.

For this method of treatment he was committed to Newgate, on a warrant of the President of the Royal College of Physicians, London, in 1694.

Prof. Wood makes the following statement, in speaking of the therapeutic use of ipecacuanha : "In sick stomach, of nervous origin, such as occurs in pregnancy, minute doses of ipecacuanha have so often met with success that there can be no doubt of their value. One drop of the wine, in a teaspoonful of water, should be given every hour."†

Certainly this is a homœopathic prescription on the principle of *similia similibus curantur*, or like cures like, and the dose also. For we find that a drop of the wine of ipecacuanha contains 7,709–100,000 of a grain ; and the same author recommends thirty grains as a dose for an adult. Numbers of others have noted the fact that some remedies cured symptoms similar to those which they produced when taken by the healthy, but no one seemed to be impressed by the fact until Hahnemann, about 1790, while translating Cullen's "Materia Medica," was not satisfied with his description of the action of Peruvian bark, so decided to take it himself to determine its effects. After taking it for several days he had a violent chill, fever and sweat, similar to an attack of intermittent fever, from which he had suffered a few years previously, which had been cured by

* *Titus Cantharidum in Medicinâ Usus Internus*. Per Joannum Groenvelt, M.D., e. Coll. Med., Lond. Editio Secunda, 1703,

† *Therapeutics; Its Principles and Practice*. By H. C. Wood. Seventh edition, page 657.

Peruvian Bark. He discontinued the experiment and recovered his health, and then tried it again, with the same results. He then induced some of his friends to try the experiment, with similar results. It then dawned upon him that this was the secret of the curative action of drugs, that they cured symptoms similar to those they produced when taken by the healthy. He then tried other remedies, and found that each drug produced symptoms peculiar to itself. He then carefully administered the remedies he had proven on the healthy, in cases with similar symptoms, first to his own family, and then to other patients, with very gratifying results.

After fifteen years, in which he had proved sixty drugs on himself and had prescribed them in his practice, he then offered his discovery to the profession, saying: "I believe I have discovered a system which will render the practice of medicine certain and its success brilliant. I have labored fifteen years to test my discovery. My own experiments, and the testimony furnished by the records of medicine, convince me of its truth. I lay it and them before you, my colleagues, and I conjure you, in the name of truth, by the interests of humanity, to investigate it candidly and without prejudice."

This discovery was claimed by Hahnemann to be a natural law of cure, and the experience of thousands corroborate his conclusions.

That there was no law or regular mode of practice previous to this, or at the present time, is a well-known fact. Many of the leading allopathic physicians doubt the efficacy of their treatment. Sir John Forbes says, in 1846: "In a considerable proportion of diseases it would fare as well, or better, with patients in the actual condition of the medical art as more generally practiced, if all remedies, especially drugs, were abandoned." Things (in medicine) have arrived at such a pitch that they cannot be worse; they must mend or end."

Dr. Adams, the learned translator of Hippocrates, says, in 1849: "One cannot think of the changes in professional opinion, since the days of John Hunter (at the close of the last

century), without the most painful feeling of distrust in all modes of treatment."

Hippocrates made a similar statement twenty-two hundred years ago : "The whole art is exposed to much censure from the vulgar, who fancy that really there is no such thing as science in medicine, since even in acute diseases practitioners differ so much among themselves, that those things which one administers as thinking the best that can be given another holds to be bad."

Such differences as this never occur among homœopathic practitioners, as they prescribe according to a fixed natural law.

"The law of homœopathy, as expressed in the words *similia similibus curantur* (likes are to be treated with likes), should be understood as a simple statement of a natural fact, of universal occurrence, under certain conditions, which are essential, and in the absence of which it does not occur."*

Allopaths, as a rule, look upon homœopathy and sugar pills as synonymous, and reject it without investigation. The homœopathic law *similia similibus curantur* has nothing to do with the dose. A tablespoonful of castor oil may be prescribed in a certain case of diarrhoea, and be a perfectly homœopathic prescription, and be followed by recovery. Yet this same case, if given the remedy in the potentized form, would have recovered much quicker, and not have suffered the pain caused by the large dose. The allopath will say that the recovery is due to the large dose emptying the bowels of the irritating matters that are causing the diarrhoea. If that is the case, why are not all cases of diarrhoea, in which it is administered, followed by recovery? It is a well-known fact that only certain cases are. In the proving of castor oil we find "diarrhoea stool whitish, watery, bloody mucus frequent. During stool foetid flatus, burning at anus."

Homœopathy simply means that a remedy given to the healthy

* *The Principles of Homœopathy.* By Dr. Sharp.

individual will cause symptoms which it will relieve in the sick. Experience has proved that the smaller the dose the more quickly the patient recovers from the natural disease, and the more quickly it recovers from the effects of the drug. The objection is raised to the smallness of many homœopathic doses, that they can have no effect, as many remedies cannot be detected by the most careful chemical analysis after the sixth dilution.

That the effect of the remedy does not depend on the ability to detect it by chemical analysis, is proved by the following : "Viper's poison is a yellow liquid, which, when analyzed chemically, cannot be distinguished from simple gum water. Yet the smallest portion which can be taken on the point of a needle, and inserted by a puncture in the skin, will cause death."* The inhalation of ipecacuanha has nearly caused death in a number of cases. The following is quoted from Dr. Scott, in the *Medical and Physical Journal*, Volume XXIV., page 233, of a lady, the wife of a physician : "One attack, caused by being near her husband at the time he put some ipecacuanha into a bottle, was so violent as nearly to prove fatal. There was a remarkable stricture about the throat and chest., with very troublesome shortness of breathing, with a peculiar kind of wheezing noise ; the symptoms were aggravated at night. At 3 o'clock in the morning she was gasping for breath at the window, pale as death, her pulse scarcely to be felt, and in the utmost danger of suffocation. She became easier about 11 A. M. till 11 P. M. The same scene was continued eight days and nights."

This shows that very minute doses may have a powerful effect, and it is doubtful if the small quantity inhaled by the lady could be detected by chemical analysis.

The perfume of a flower cannot be measured, weighed or analyzed by the chemist, yet we are conscious of it by the sense of smell.

The contagion of scarlet fever cannot be felt, seen or detected

* *Thompson's Animal Chemistry*, page 538.

by the sense of smell. Yet no one will question its power. That ordinary allopathic doses are frequently followed by grave consequences no one can doubt. Samuel Cooper, in describing the best modes of administering mercury, says : "Occasionally it attacks the bowels, and causes violent purging, even of blood. At other times it is suddenly determined to the mouth, and produces inflammation, ulceration, and an excessive flow of saliva." "Mercury, when it falls on the mouth, produces in many constitutions violent inflammation, which sometimes terminates in mortification."* Dr. Sharp says : "I have seen it cause in a young lady, who had taken blue pills for an attack of fever, the mortification and separation of the greater part of the lower jaw."

Moliere asserts : "Most people die of their remedies and not of their diseases."

I am often asked how the small dose administered can act, to which I am compelled to answer: I do not know. If I were to ask an allopathic prescriber how the large dose acts, I should receive the same answer.

Sir Isaac Newton says: "I have not been able to discover the *cause of the properties of gravity* from phenomena, and I frame no hypothesis, for whatever is not deduced from the phenomena is to be called an hypothesis, and hypotheses, whether metaphysical or physical, whether of occult qualities or mechanical, have no place in experimental philosophy. To us it is enough that *gravity does really exist and act according to the laws which we have explained.*"† So, with the homœopathist, it is enough to know that the small dose *does act according to the law of "similia similibus curantur,"* of which we have ample proof by experience. "It is certainly true," says Dr. Routh, an eminent allopath, in an argument against homœopathy, "that small doses, and especially in large dilution, will oftentimes act very satisfactorily. I have seen this repeatedly." Every

* *Cooper's Surgical Dictionary.* Art. Mercury.

† *Close of the Principia.*

advance in medicine has met with strong opposition from the mass of the profession. The French Academy, in 1642, declared that the blood did not circulate; in 1672, that it was impossible. In 1609 it expelled one of its members for using quinine in the treatment of ague; the great allopathic specific in the treatment of that disease of to-day. In fact, many claim that it is the *only specific* in the entire *materia medica*. The great Harvey was persecuted for his discovery of the circulation of the blood. The opposition which Dr. Jenner met with when he brought forth his theory of vaccination as a preventive against small-pox is well known.

Homeopathy met with a similar reception. Hahnemann was compelled to move eleven times, by the persecution of his colleagues, under cover of the law, which they had passed, prohibiting physicians from dispensing their own prescriptions. This, of course, prevented Hahnemann from practicing, as no apothecary could put up his medicines. He was eventually driven to Paris, where he died in 1843, at the age of 82. In 1851, the Council of Leipsic (his last place of residence in Germany) appropriated a beautiful plot of ground for a site for a monument of Hahnemann, the man who they had forced to leave their city thirty years before, as an unauthorized and illegal prescriber.

(*To be Continued.*)

REPORTS OF CASES.

ENTERO-UMBILICAL FISTULA.

By M. FRANCIS, Texas.

On January 24, 1894, a three-year-old gray mule was brought to the infirmary for treatment. The following history was given: For several months there had been noticed a hole through the umbilicus through which considerable quantities of *ingesta* would escape whenever the animal made sudden or severe exertion. The mule was very wild, making examination of the parts im-

possible without casting. Having been confined on a very limited diet several days the mule was cast, and turned on his back. The tract, which would admit a lead pencil, was explored about ten or twelve inches, probably opening into the cœcum. We were somewhat undecided as to the best plan to pursue, but concluded to try scalding the walls of the tract with caustic. A cone of nitrate of silver was introduced and moved to and fro for about one half minute. The mule was released and returned to the stall. No bulky food was allowed, and but limited quantities of water, for several days. Nothing further was done. The tract healed promptly and kindly, and in a month the case was discharged as cured. A recent letter from the owner (Nov. 21st) stated that the mule has worked hard all summer and fall, and that the recovery seems to be permanent.

PUNCTURED WOUND OF THE CHEST.

By the same.

On May 28th, I was called to see an eight-year-old mare that had been severely injured the evening before. This mare and a gelding had been playing in a lot and had attempted to leap over a picket fence which formed the enclosure. She had failed to clear the fence, and coming down on it, a sharp picket had entered the thorax on the left side about the seventh rib. The picket broke off at the upper rail of the fence and a piece eight or ten inches long remained in the wound. A physician who happened to be near removed it. When called the next morning I found a wound entering the chest through which three fingers could readily be passed, and during each inspiration and expiration, the air rushed in and out of the chest. The wound was explored gently and a piece of the paling three inches long was removed. The pieces removed by the physician had been preserved and we were able to "reconstruct" the paling with the exception of some small parts which may have been lost.

The temperature was now 104° , pulse and respiration con-

siderably disturbed. The indications for recovery were certainly not very encouraging, and we decided to attempt treatment according to antiseptic methods.

The wound and surrounding parts were thoroughly washed with bichloride of mercury 1 to 1,000 parts of water. My impulse was to close the wound with stitches, but after some hesitation decided that perhaps drainage should be provided, so no stitches were employed. Several ounces of borated cotton were placed over the wound, and over this a large pad of oakum. These were held in position by a wide, double "many-tail" bandage of ticking and pressure increased by a surcingle.

The animal received salicylate of soda in doses of one drachm three times daily, and the best food and attention. Clean dressings were used daily. The wound responded kindly to our treatment, and in ten days had closed. No further dressings were considered necessary from this time except a light dusting with iodoform.

A very small scar is now the only evidence of the accident.

AN OUTBREAK OF TEXAS FEVER IN CATTLE.

By G. W. BROWNING, V.S., Huntsville, Ala.

Having had the opportunity of seeing several cases of the above disease during the past summer, I concluded to write a few notes to the AMERICAN VETERINARY REVIEW on the subject. The first case I noticed was on the 5th of July of last year, and from that date the cattle continued to die with the disease until no less than seventy-five or eighty had succumbed, and the malady lasted until the latter part of September, when we had a pretty good frost and then the disease ceased to exist. The tract of country where the disease existed, covered about four miles square, lying just out of the corporate limits of Huntsville. It is a low, flat land, having a white clay subsoil, or what is called crawfish lands, and lays outside, and there being no stock law in this county, nearly all the cattle from the city of Huntsville went out to feed on this vacant ground. Nearly all the cattle around here are of the Jersey breed, this being the

home of the noted Jersey cow Lilley Flagg, and we have as good Jerseys here as most anywhere one would strike. The first case I was called to see on the 5th of July, 1894, was a two-year-old heifer at the farm of Captain Milton Humes, who sent a messenger after me saying they had the murrain among the cattle out there and had lost three cows with it and another one down, and wanted me to go and see if I could do anything for it. On arriving at the farm and examining the animal, I found it lying in a comatose condition, with a temperature of 106° , and died in about two hours after my arrival. I held a post-mortem and pronounced it a case of anthrax, or Texas fever, as his cattle had been running out on the commons on the above-named territory, and was covered with ticks. I ordered him to separate the rest of the herd to an enclosed pasture he had, and wash with kerosene to rid them of the ticks, and he only lost one more, that was a two-year-old bull. I had him to burn the carcass and keep up the propylactic treatment of the rest of the herd, which consisted in giving Glauber salts in drinking-water and feeding on green corn; but the majority of people having no pastures, continued to let their cattle run out on those low grounds after the cattle were dying with the disease. There being no State veterinary surgeon, or any law to control contagious diseases in the State of Alabama, all I could do was to order the carcasses burned and separated from this district, but there were very few who carried out my requests.

History.—The summer here was very dry and hot until the 1st of July, when it began to rain and overflowed the valley where cattle run, and I never witnessed a case of it till after the first rain that succeeded the long dry spell, and they continued to die one and two a day after that until frost, when they quit dying all at once. In a great many instances the animal would appear in perfect health in the morning and would be milked and turned out, and found dead before night. I saw several die as early as two hours after showing signs of the disease, and where death occurred, and that was in the majority of cases, none of them lived over the fifth day.

Symptoms.—The animal suddenly goes off its feed, rumination is suspended, the dorso-lumbar region is tender to pressure, a recumbent posture is almost constantly maintained, and what little time the animal is on its feet there will be rigors and trembling, but the standing posture is not long maintained; the heart beats with violence against the thoracic walls, the pulse is small, rapid and irregular, the conjunctiva red and injected; blood escapes from the nose; the eyes are sunk in the head and tears flow down the cheeks. The animal will sometime pass dark-colored urine; temperature ranges from 103° to 106° or 108° F.

Etiology.—The outbreak referred to I think was due to this part of the country being in the permanently infected district, especially the low ground mentioned, and the hot dry spell drying up all forage, followed by the rain causing the rise of the germs to the surface, heat and moisture being favorable to their development, and consequently spreading the disease through the medium of ripe ticks, flies and the like. On post-mortem, I noticed the following lesions: Nothing of importance was noticed about the skin; found considerable œdema of the subcutaneous tissue, which give a crepitus sound as filled with air. The lungs in some of the cases showed black hepatization, and a large amount of froth in them and bronchi. The heart contained petechial spots and the ventricles distended with black blood; the kidneys enlarged and containing considerable œdema around them; the spleen in all the subject I examined was greatly enlarged and full of black, thin blood; on taking it out of the body the blood would gravitate on holding it up from one end to the other; the liver was very much enlarged and of a pale color or sometimes mottled. I found more or less hyperemia in the intestinal track and mesentery veins very much relaxed and escaped black blood; bladder containing a small quantity of dark-colored urine.

Treatment.—As most of the cows belonged here in the city, I had them kept in a good airy barn, allowed them plenty of fresh water and thin bran mash for food and gave twelve to six-

teen ounces of glauber salts and commenced on the second day with chlorate of potass. 3 iii, quinine sulph. 3 i. salycilic acid 3 i (in a pint of water for one dose). This I repeated three times a day with ten minims of Fleming's tincture of aconite three times a day in the drinking water, but very few survived, only about 2% of the number.

THE HUMAN BODY CONSISTS OF NUMEROUS MAGNETS, GALVANIC BATTERIES AND ELECTRICAL COMBINATIONS.

By G. LEO HAGENBURGER, M.S., D.V.S., Brooklyn, N. Y.

1. *Human Magnets.*—The arms constitute a horseshoe magnet, the right hand being the North, the left the South Pole; the legs constitute another magnet; the toes and fingers a series of magnets. The human head, or brain rather, is a compound magnet, the most prominent North Pole being at the forehead, the principal South Pole situated at the occiput. The liver, spleen, with their nerve connections and blood-vessels, constitute as shown, a bar magnet, with the North Pole at the spleen, the South Pole at the liver; in other words, stronger electricities flow from right to left side, or justly opposite to the usual directions of magnet, electricities in the more external portions of the organism, which is from left to right. The right and left kidney also, the duplex portions of the sexual system with connecting tubes, nerves and vessels constitute electro-magnetics or magnets, and are simply kept in activity by the galvanic and other chemico and vital processes, which will be explained as follows:

2. *Galvanic Batteries and Polarized Centers of the Animal System.*—The brain being the great galvanic battery of the nervous system, its electricities being generated by numerous troughs and cells, as it were, its principal one being the spinal column, its larger cells, so to speak, the ganglia of the cerebrum and cerebellum; the smaller cells being the ganglia of the

sympathetic and sensory nerves, while conduction is carried on by the nerve fibres and nerves themselves. The heart, a very important organ (but very little understood by physiologists in the past), is the central galvanic battery for the vascular system in which a coarser grade of forces are brought into action, having electrical troughs in shape of veins and cells in the form of such centers of blood as the brain, lungs, liver, stomach, spleen, kidneys, etc. Wires in shape of capillaries, etc. It is exceedingly important the blood should be well supplied with vitalizing and active principles so that the electrical life ethers (the essence of all life) may be attracted briskly through all its channels.

3. *Chemical Composition Govern and Rule all Parts of the Body.*—We know and can prove that one important arrangement of chemical forces is caused by the union of the thermal color (red) with the electrical color (blue), and is exemplified in almost every function in the body.

Thus, the blue blood (venous) and the red arterial work together in the right and left side of the heart; the bluish white interior fibrous matter of the cerebrum lies right up against and interblends as I may call it, with the cellular reddish gray exterior matter of the same, and consequently this junction must be the point of the greatest and finest chemical activities from the part that the sensory nerves and from all parts of brain and body convey their forces there, hence it is deemed a true *sensoryium*. When I say this, I, of course, don't wish to infer that thought, sensation, consciousness, etc., result merely from chemical action, but from a spirit as a quickening principle.

(See Barter's Chemistry and Phisic's Spirit, Matter, Force, as the Three Factors in the Universe), in connection with chemical action.

1. *The Bluish White Corpuseles.*—Collosum lies against the reddish gray superior ganglion F, which in turn lies against the great inferior ganglion E. The cerebellum L, like the cerebrum M, M, has reddish gray cellular matter on the outside and with bluish on the inside, although this white interior is interspersed with reddish gray in a way as to resemble a tree, and

hence called the *arbor vitae* (or translated from Latin the "Tree of Life"). The spinal cord ends off at the top with the medical oblong A, which is bridged over and above with the pons varollic B, and all *three* of these reverse the order of the brain, having the colder bluish white on the exterior and the reddish gray on the interior. From each ganglia of the great sympathetic nerve, that runs along on the whole interior system near the spine, two nerves pass to the spinal nerves, one large and reddish gray, the other bluish white. The latter are those of sensation; the reddish gray are those more directly of motion.

It is quite common for the interior portion of the sympathetic ganglia to be yellowish gray, instead of reddish gray, so it may be supposed that some violet elements must co-operate with such.

Thus we see all through this little explanation, there are through the system the bluish white elements answering in the place of the zinc plates in the galvanic battery, and the reddish or yellow elements answering to the copper plates in the battery.

In this manner we get a brisk play of fine ethers through chemical action, so the system is kept full of heat and life. Even the scinous and serous membranes having a certain amount of acid (electrical in character), while the mucous membrane, or more alkaline (or thermal in character), and this adds quickening principle to the whole system. (This I have proven to my own satisfaction regarding the poles and on the principles of light and color).

4. *Philosophy of Sensation.*—So far has been proven that electrical and thermal forces rule everywhere throughout nerves, arteries, veins, tissues, etc., and that even those spiritual forces (so little known in physics) underlie and arouse, as I may term it, the whole work in perfect harmony with chemical law, which always requires two factors: *electricity or cold, thermism or heat*, as contrasting forces to produce effects and actions. But our physiologists deny positively that nerve force is not electricity. And why? Because it will not move the galvanometer. This

comes from the fact that some of them are ignorant of the whole nature of electricity, so far as basic principles are concerned. For example, some of them have not learned that electricity consists of many grades, a multitude I may say, and that the coarser grades are mainly used in galvanic or frictional electricities. The finer or vital and psychic electricities or ethers can no more be measured by the aid of the galvanometer than the heat at the South Pole can be by the thermometer.

In order to produce conscious sensation, the nervous ethers must necessarily pass and make a complete circuit, passing from the point of the body affected through the sensor nerves to the brain center, and back through the motor nerves to the starting point. *Motor nerves*, when acting normally, always carry these fine ethers from the brain and *sensory nerves* to the *brain*. You may ask why do not these ethers which produce sensation cause contraction of the muscles if they come back through the motor nerves? Because to all evidences then the sensory forces are more strongly *thermal* than *electrical*, and heat of course, as we know, cannot contract anything, but expands. Sensory nerves, like motor nerves, have channels for heat and cold forces, both showing a quality in all things in the universe. To make this law of sensation clearer, let us for example, prick the end of our finger. For two reasons sensation is keener there than elsewhere:

1. The tactile corpuscles are abundant.
2. Electrical tension is always greater at points (a very important factor to be remembered in modern surgery).

The prick or impression made will send the ethers excitedly along the sensory nerves of the forearm to the brachial plexus and spinal column. Just before the latter they will be fired up anew by passing through the ganglion at the post root or spinal nerve. But physiologists claim they have discovered that after reaching the spinal column some of the sensory fibres pass on up to the brain, while others on the contrary pass downward along the spine and thus deflect the currents, so they reach the original starting point and cause sensation there and not at the

brain. In producing a galvanic current it is known that the principal irritating sensation does not result from the positive or efflux pole, but at the negative, and where the forces strike after completing or nearly completing the circuit. Hence, if the sensor currents should stop at the brain or the gray matter, it would be felt there and not at the starting point. In such a case terrible and dangerous wounds may be inflicted upon human subjects or animals, and we should not and would not know by feeling or sense of feeling where to locate them. If we should take the effect of the nerve forces to the spine and not to the brain we should have unconscious sensation or at least a very indefinite effect of it.

5. *The Functions of the Special Senses of Sight, Touch, Hearing, Taste and Smelling* all excited by the aid of thermal and electrical currents of the animal organism working simply in harmony with chemical law. The most refined of these, the sight, is acted on by ethers only; hearing, the next, is produced by means of ethers and atmospheric gases. Smell deals mainly with gases; taste with liquids or semi-solids and touch, last of all, with solids, liquids, gases and ethers. (This shows a coarser grade as seen in atomic principles in electro-physics of modern date).

The organ of sight deals with luminous ethers in the form of liquid and colors, through the medium of which everything in the universe is revealed to man. Scientists have shown us that the retina contains thermal elements which attract by the same law and receive chemically the electric colors of light and also contains electrical elements which receive and appropriate the thermal rays of light. Hence the blue elements in the retina receive the red rays; the red elements receive the blue rays; the violet elements receive the yellow rays, and so on; in this way these luminous ethers send their impressions upon the brain proper which produces the wonderful phenomena of vision.

Herr Salzer estimated in an essay before the Vienna Academy of Sciences several years ago that there are 438,000 nerve fibres and 3,360,000 retinal rods and cones in the human eye.

Hearing, as we know, is accomplished by the air waves ordinarily striking at the tympanum and especially by electrical and thermal ethers which go far beyond the tympanum into the interior portion of the ear sent forward by vibratory motion in connection with gases, liquids, sounding boards until the cochlea is reached, the presiding genius and its impressions are conveyed to the auditory nerve and then to the sensorium.

The wonderful scales of the cochlea, consisting of about 3,500 outer and 5,200 inner rods of Corti (not according to my finding them in the dissecting room,—I quote this from Flint), constitute 8,000 cords of constantly increasing lengths, so that every grade of musical tone can have an answering element that shall communicate to human consciousness an exact perception of pitch.

The fact that sounds can be communicated to an ear which is under water, or telephoned 100 miles, shows that sound does not simply consist of air waves, but of a finer and swifter etherial fluid, although the air is a necessary assistant in the process and can modify its waves as well as its musical tones.

The sense of smell deals with gases, and yet we find on these gases are borne the minute particles of various substances such as emanations from flowers, ammonia, aromatic plants, diseased tissues, etc. The particles flying in the nasal passages find their peculiar chemical affinities in the mucous membrane of epithelial cells, where they are attracted, and the impression is carried on to the olfactory N, which has three roots side by side, the middle one being reddish gray, the outside one being bluish white.

The sense of taste is generally supposed to be perceived by the pappillæ of the tongue—different varieties on the upper side. By experiments, however, you can prove to yourself that fruits or edibles can give but a feeble taste unless they are converted into a fluid at first, or semi-fluid at least, and then pressed between the tongue and the roof of the mouth. For example, take a cherry or grape and break the skin so that the juicy pulp comes against the tongue, while the unbroken part comes against the palate and the peculiar taste of the fruit is entirely wanting; and

why? Because the electrical circle is broken and the skin of the fruit acting as an insulator prevents the current passing from the tongue to the roof on its way to the brain, and back again to the tongue (a complete circuit).

This explains the reasons why food must be changed into liquids before we can get its full taste, as liquids are better conductors than solids are. To prove to yourself that sensation of taste may be caused by electricity, place a silver coin under the tongue and a copper coin above it, and then allow the edges to meet, so that the circuit may be complete, and sensation will occur immediately. On the tongue we find three general sizes of pappillæ, the large circumvallate, few in number, the medium-sized fungiform and the smaller or conical and filliform. From what we know of chemical affinity we may conclude that the redder portion of the tongue, such as the fungiform pappillæ, will attract to themselves the blue elements of food, such as acids and other cooling properties; on the other hand, some of the smaller pappillæ will be observed to have a pale or bluish cast and these would naturally attract thermal elements, such as carbons, alkalies and sweets, peppers, etc. When the taste is not perverted from a love of artificial stimuli and over rich diet, the chemical forces of the system will generally call for such foods as are most needed and the demands of nature should be heeded. Food that is wholly unpalatable will not call forth sufficient saliva and digestive processes properly, and so nutrition is not carried on as completely when otherwise. Hence you find subjects that are opposed to certain foods for no apparent cause or reason to themselves, simply a chemical law.

The sense of feeling or touch is explained under the head of sensation.

Summing up all I said I wish to state further that all the senses, in short all the functions of the animal organism are carried on as well as the process of life through the activity of unimpeded flow of vital ethers, both electrical and thermal, and therefore we have to learn something not universally taught in medicine, how to keep the system charged with said require-

ments as found in nature, best, plain and simple, to treat disease which is either due to an excess of electricity or thermism, or a lack of thermism or electricity in the system, and hence the one thousand and one symptoms noticed in disease as a consequence of the same. Not until such times we recognize basic laws as a principle everywhere, can we fully recognize the cause of disease and scientifically fight its removal. And I feel sure that many obscure diseases to-day will, in the future be explained through and only by basic principles. The introduction of electro-therapeutics in veterinary medicine should be encouraged and studied by every veterinarian, and I am sure facts will be brought out in the future which justify the means. My experience is yet limited to enumerate many cases as I first now begin to realize, after a few years of study, that I can get better results from their application in almost hopeless cases, than I can from nerve medicines and toxic agents, which if administered will probably give quick results, but of a short duration in my experience, but so disastrous, especially on the nerve centers, by their powerful reactions which they produce. I will mention some cases later on; all I ask is to give me your kind consideration and give the matter a careful study in the future, as I am sure it will mean with you, the same as with me, better results and less dead horses, and more humane treatment to our equine friend and a little more satisfaction to our clients at times.

Thanking you kindly for your indulgence with me, probably to some a very trying subject, but it outlines a few remarks, experimental in character, underlying a great truth.

THE REAL VALUE OF THE MEDICINAL PEROXIDE OF HYDROGEN PREPARATIONS FOUND IN THE MARKET.

By H. ENDEMANN, PH.D., Chemist,
(Formerly with the Health Department of New York City.)

My attention having repeatedly been called to several reports and analyses made by different chemists and published by some medical journals, I concluded to examine all the brands of per-

oxide of hydrogen which I could find on the market, in order to ascertain the real value of each when intended to be used as an antiseptic remedy, both internally and externally.

The reports on the subject which have come to my knowledge are quite contradictory, and my object is to impart to the medical impression the results of my experiments, which have been made on fourteen fresh samples, purchased by me in duplicate, directly from the manufacturers or their selling agents.

These brands have been tested for the volume of available oxygen, the amount of residue, the degree of acidity, and the amount of soluble baryta salts contained therein, as per following table:

BRANDS.

No.	BRANDS.	Baryta found in Soluble Baryta Salts contained in 100 C. C. of Peroxide.....		Acidity expressed in Cubic centimeters of Normal Volumetric Soda Solution for 100 C. C. of Per- oxide.....	Residue obtained from 100 C. C. of Peroxide of Hydrogen dried at 120 degrees C.....	Volume of Available Oxygen determined by means of a solution containing 5.665 Grammes of Per- manganate of Potash per liter of distilled water.....
		10.50	0.1880			
"	1. John Bene's Peroxide of Hydrogen Medicinal.....	27.35	0.2180	2.19	None	None
"	2. Hydrozone			3.11	None	
"	3. Larkin & Scheffer's Peroxide of Hydrogen Me- dicinal.....			6.75	None	
"	4. Mallinckrodt's Peroxide of Hydrogen Medicinal..	9.65	0.1206	1.43	None	
"	5. Marchand's Peroxide of Hydrogen Medicinal.....	9.55	0.1408	1.29	None	
"	6. McKesson & Robbins' Peroxide of Hydrogen Medicinal	16.55	0.0564	0.44	None	
"	7. Merck & Co.'s Peroxide of Hydrogen Medicinal..	10.95	0.0540	4.57	None	
"	8. Oakland Chemical Co.'s Peroxide of Hydrogen Medicinal.....	10.50	0.0382	0.34	0.0017	
"	9. Peuchot's Peroxide of Hydrogen Medicinal.....	10.60	0.4674	1.77	0.0018	
"	10. Powers & Weightman's Peroxide of Hydrogen					
"	11. Pyrozone, 3 per cent.....	8.40	0.0830	2.03	None	
"	12. Rosengarten & Sons' Peroxide of Hydrogen Me- dicinal.....	11.20	0.0534	0.76	None	
"	13. Smith, Kline & French Co.'s Peroxide of Hydrogen Medicinal.....	3.10	0.1002	0.25	None	
"	14. E. R. Squibb's Peroxide of Hydrogen Medicinal..	6.15	0.088	2.6	None	
"		12.40	1.004	12.04	None	

By referring to this table it is easily understood that sample No. 2, "hydrozone," is far superior to any other brand which has ever been made, not only on account of its containing a much larger amount of available oxygen, but also owing to the presence of a small quantity of several essential oils, the respective nature of which could not be determined, very likely because they have been submitted to the oxidizing action of peroxide of hydrogen before being used to make "hydrozone."

I attribute to this small quantity of essential oils the great superiority of hydrozone over any other brands of H_2O_2 as a healing agent.

When hydrozone is diluted with distilled water, in the proportion of half and half, the resulting mixture contains about 13.5 volumes of available oxygen, and its bactericide power still remains the same as the bactericide power of sample No. 5, which contains 16.55 volumes of available oxygen.

Sample No. 14 comes next to sample No. 5, but it is readily seen that the degree of acidity is entirely too large for a preparation which is to be applied to the most sensitive diseased mucous membranes.

Sample No. 11, called "Pyrozone," which contains 11.20 volumes of available oxygen, is quite similar to sample No. 6, with the exception that the latter contains a small quantity of salicylic acid. Very likely the salicylic acid has for its object to increase the bactericide power, but, unfortunately, I fear that it impairs the keeping properties of this preparation.

Acidity.—The fourteen brands which I have examined contain free acids (phosphoric, sulphuric, muriatic), and I must say that peroxide of hydrogen medicinal should never be made neutral before using, even in the most delicate cases. Neutral peroxide of hydrogen rapidly decomposes under all conditions of exposure.

The keeping properties of H_2O_2 solutions vary a great deal with the degree of purity and the percentage of free acids contained therein.

If the proportion of acid is too large, the profession well

know that it acts as an irritant upon diseased surfaces. If it is too small, the solution don't keep well.

My opinion is, that a standard solution of medicinal H₂O₂ must answer the following tests:

1. It should contain at least fifteen volumes of available oxygen.

2. The quantity of free acids contained in 100 cubic centimeters should require not less than 1 c. c. and not more than 3 c. c. of normal volumetric soda solution, to be made neutral. Such a small quantity of free acid is not objectionable.

3. It should not contain any soluble baryta salts.

4. It must be free from sediment.

It is to be noticed that the brands No. 7 and No. 12 are valueless.

The brands No. 8 and No. 9 are not fit for medicinal uses, owing to the fact that they contain traces of soluble baryta salts.

The brand No. 3 has a heavy sediment of sulphate of baryta; which may be considered inert towards the system, but it is certainly detrimental to the keeping qualities of this preparation.

Brand No. 14, which is sold as a ten volume solution, is really twelve volumes, but it is too acid. Brand No. 5, which is sold as a fifteen volume solution, is really 16.55 volumes, viz.: About ten per cent. above the standard.

The brand No. 2, which is sold without any mention of volume, is really a 27.35 volume solution, viz.: Ninety per cent. above the standard.

None of the other brands come up to the standard, but on the contrary they run from 35 to 55 per cent. below.

CORRESPONDENCE.

DR. SALMON REPLIES.

Editor AMERICAN VETERINARY REVIEW.

DEAR SIR:—In a letter published in the December number of the REVIEW, Dr. Schwarzkopf does me the honor to use my

name in connection with his comments on certain editorial paragraphs which appeared in the issue for the preceding month. Is it not surprising that the doctor should throw off the discreet silence which he preserved so successfully at Philadelphia, when he had my remarks before him for a text, and now return to the subject when his only incentive is two short paragraphs, which the writer possibly thought were brilliant, but which most readers probably regarded as rather stupid?

The paragraphs in question were apparently intended to be witty, and the humor I have no doubt was aimed at me, but Dr. Schwarzkopf is evidently not yet sufficiently familiar with the English language to catch the subtle meaning which the author expected they would convey. He has consequently mistaken an ally for the enemy, and, without waiting to investigate, has opened up with his artillery at long range.

With the remarks directed at the paragrapher I have nothing to do, but concerning those aimed at me I may be permitted a few words. It is stated that "when anybody attacks the United States meat inspection service Dr. Salmon's patriotism gets immediately aroused, and he violently throws mud at the foreigners."

As to the charge of mud throwing I must enter a disclaimer. The doctor has again apparently failed to grasp the meaning of our American expressions. It is true that when one gentleman asserted we had no professional inspection of meats in this country, I demonstrated the contrary by pointing to the Federal meat inspection service, composed of inspectors and assistant inspectors, all veterinarians, and all under the civil service regulations. When certain high German officials returned to their country after visiting the Columbian Exposition, and reported that there were only two microscopists engaged in inspecting pork at Chicago, I was able to disprove their statements by exhibiting the bureau pay-roll for Chicago, which shows the constant employment of from fifty to ninety persons in the microscopical inspection from the time this service was inaugurated to the present.

And when certain alleged Americans, of German extraction, have dilated upon the perfection of the German meat inspection service and the weakness of our own, it has afforded me exquisite pleasure to point to the fact that there are many times the number of cases of trichinosis in man reported in Germany from the use of their inspected pork than are recorded in this country from eating pork which has never been inspected. Also that in Germany, although they have inspection, they continue to eat the flesh of animals affected with advanced actinomycosis, tuberculosis, pleuro-pneumonia, and various other diseases, as well as pregnant and parturient females, which, if an inspector passed in this country, and it became known, would cost him his position.

With these facts before me I have asked the question: Why this elaborate inspection system of Germany if it neither prevents trichinosis nor condemns the carcasses of diseased animals, except in the most extreme cases, in which the consumer himself would probably reject the meat?

This, however, is not throwing mud, in any recognized acceptance of the expression. It is simply stating the facts. And I am sure the plain facts are sufficient to establish the point which I had in view.

Finally, as to my alleged failure to exhibit that patriotism and pride in the profession in our own country which the doctor expects from me, and my championship of a dying cause, this opinion would be most distressing to me were it not all due to his having been again led astray through failure to grasp the situation and the language.

My remarks at Philadelphia were intended as a protest against the insufferable egotism and effrontery of a few overzealous gentlemen who, having been elected to membership in a society composed very largely of two-year men, went out of their way at that meeting to denounce such men as little if any better than quacks. I am not a graduate of a two-year school, but I have long been a member of the United States Veterinary Medical Association, and if I held such views as were expressed

in regard to my associates, or so much as gave assent to them by my silence, I should consider it my duty to resign at once.

Those of us who have long worked for the advancement of the veterinary profession in this country, and have watched its growth and development for a quarter of a century, *know* how much has been done by the two-year schools and the two-year men. And speaking for myself, while I shall encourage and assist all honest and legitimate efforts to improve the course of instruction, I shall not encourage the idea that any particular institutions have a right to monopolize the veterinary education of the United States. Further than this, I do not believe that either the stock owners or the veterinarians will be benefited by an attempt to force an arbitrary extension of the course of instruction before the country is ready for it. We still have large stock raising districts where the veterinarian is unknown, and where it is asserted he could not make a livelihood. But this was said a few years ago of sections where veterinarians are now doing well. Pioneers entered the field, educated the people to the value of veterinary assistance and developed new fields for the profession.

If the fields which now remain unoccupied have not been found profitable for the man who has given only two years' time and the fees of two courses of lectures for his professional education, will they be profitable for the graduate whose course has cost him fifty per cent. more than this in both time and money?

There are official positions and fields for practice in cities and in the richer stock raising districts which the three-year man can occupy with profit, but there are many others in which he would not get a dividend upon the expense of his education. Is it not reasonable to suppose that, during this transition period, there may be a mission for both the two-year and the three-year schools?

We have most excellent men in the profession who have graduated from two-year schools, and at a time when the requirements at these institutions were much less rigid than they should have been. Why this sudden denunciation of two-

year schools, *per se*? Why this demand for an immediate and arbitrary extension of the course all along the line at a time when the value of horses has depreciated to an alarming extent, and when there is an unexampled depression in business of all kinds?

The two-year schools have never been brought to perfection. There has always been abundant opportunity to strengthen the faculties, improve the methods and advance the entrance examinations. Would not improvement of this character benefit the profession as well as an extension of the time, if the faculties, methods and requirements for admission are to remain the same. There can be no doubt of it; but this plan of advance apparently has no attractions for the gentlemen who are proclaiming themselves as the repositories of all the progressive tendencies, all the professional pride, all the unselfishness, and all the wisdom in the profession.

Instead of opposing the three-year institutions, I am most happy to see them established; indeed, I should be enthusiastic over them had not their promoters shown such an intolerant spirit and a scarcely concealed determination to crush, if possible, all competition. The graduate of a two-year course is not necessarily inferior to the graduate of a three-year course; this depends partly upon the institution and partly upon the student. There may be some institutions which could not turn out a competent practitioner, after a six-year course, for the very reason that a faculty cannot very well teach that which it does not itself know. Consequently, a practitioner's competency should be measured by the examination which he can pass, rather than by the fact that the college from which he graduated has a two or three-year course.

I regret that a comparatively few gentlemen, whose experience in the work of building up a profession is in inverse proportion to their zeal, are likely to injure a good cause by going to extremes in language and measures. There have already been too many attempts by veterinarians in this country to build up certain individuals or certain interests by pulling others

down, and so far as my observation extends this course has generally reacted against the movers, and, unfortunately also, against the profession.

I hope that the gentlemen who are so much interested in my position concerning this matter will see, from this plain statement of my views, that I am not opposing the advancement of veterinary education, or in any sense posing as the champion of a "dying cause." My efforts are now devoted, as they always have been, to the elevation of our profession and the improvement of our science by a steady, normal process, which is much more certain in its results than any attempt to reach the objective point at a single bound, and especially so under the present unfavorable conditions.

D. E. SALMON.

SURGICAL TREATMENT OF PERIODIC OPHTHALMA.

December 27, 1894.

DEAR DR. LIAUTARD:—I notice in the November number of the REVIEW the report of the United States Veterinary Medical Association meeting, held in Philadelphia, in which I see that the paper I read at Chicago was discussed. After which it stated that the sense of the meeting was "a general lack of approval seemed to prevail as to the wisdom of performing a paracentesis for the disease."

Will you kindly ask in your REVIEW how many, especially of those who discussed the wisdom of the operation, ever saw the operation performed on the human or equine eye, or ever operated themselves? To condemn or censure a new surgical procedure, without having had any experience in the matter, is not what the modern veterinarian should do.

To elevate the profession, of which I hear so much among veterinarians, is in this age of progress and enlightenment, not to cavil at anything *new*, but try and improve on any suggestion made.

Many an operation and invention has been scoffed at by educated men, for the simple reason that they were too narrow

to get away from the narrow rut of their own self-conceit, and men eminently desirous that no one else traveled in any other way than theirs.

I have had but one inquiry about the operation from Australia, and it would seem that there is a better method of treating this disease, of which I would like very much to know.

The Western veterinarians are very desirous of having the next annual meeting of the United States Veterinary Medical Association held at Des Moines, Ia. What do you think of it?

I believe it should be a *United States* Association, and not confined to one section of the country too often.

With this allow me to extend to you the season's greeting.

Yours, very truly,

R. H. HARRISON.

Editor AMERICAN VETERINARY REVIEW.

DEAR SIR :—On November 13th, Drs. C. A. Cary, A. H. French, S. F. Musselman, and Geo. C. Jolly met at Hotel Gatalas, in the City of Montgomery, and organized an association, and adopted a constitution and by-laws, and elected the following officers ;

President, C. A. Cary ; Vice-president, S. F. Musselman ; Secretary and Treasurer, Geo. O. Jolly.

The name of the association is, "Alabama Veterinary Medical Association."

We have every reason to feel encouraged over the progress we are making, as we are sure all the veterinary graduates in the State will join us as soon as our Constitution and By-laws are printed.

Yours truly,

GEO. O. JOLLY, *Sec. and Treas.*

COLLEGE COMMENCEMENT.

ONTARIO VETERINARY COLLEGE.

The Christmas examinations of this institution were concluded on Friday, December 21st.

The Board of Examiners, which is appointed by the Board of Agriculture and Arts of the Province of Ontario, subjected the aspirants for the diplomas which they grant, to the examination.

The following gentlemen were successful in passing the ordeal: Nelson Ball, Auburn; David H. Coleman, Philadelphia, Pa.; Robert Cunningham, Thorndale; George H. Dunn, Erie; John T. Elliott, Uxbridge; John H. Engal, Milverton; Louis Friedheim, Rock Hill, S. C.; William H. Funston, Toronto; G. W. Harrison, Souris, Man.; Dan Hisey, Creemore; John D. Irvine, Dalkeith; George Jemison, North Bay; John T. Kiethline, Jenningsville, Pa.; Robert A. McAfee, Aylwin, Que.; John H. Macdonald, Wiarton; S. Gordon Sawyer, Boston, Mass.; J. Herbert Snider, Guelph; Wilson Swenerton, Wawanusa, Man.; Benjamin Thomlinson, Clinton; Farnell Whybra, Niagara Falls, N. Y.

Primary Examination.—Arthur P. Freeman, anatomy and *materia medica*.

SOCIETY MEETINGS.

OHIO STATE VETERINARY MEDICAL ASSOCIATION.

MILLERSBURGH, O., Sept. 26, 1894.

In accordance with an understanding arrived at at our last annual meeting, the Ohio State Veterinary Medical Association convened for its eleventh semi-annual session in the city building of Millersburgh, Holmes County, O. The meeting was called to order at 7:30 P. M., September 26, 1894.

An address of welcome to the association, and in behalf of the city, was delivered by Judge W. Stillwell. The address was an excellent one, pithy, practical, and not lengthy. It was responded to in behalf of the association by our President, Dr. J. D. Fair, who in a few well chosen remarks thanked the visitors and city officers for their kind wishes, etc.

The roll being called, showed a goodly number of members to be present, besides Dr. C. L. Chase, Dr. L. P. Beechy, Dr. J. Yoder, Dr. O. W. Everly, Dr. Broomter, Dr. Caughey, Dr. Krider, Dr. W. C. Fair and Dr. H. Fulstow as visitors.

Dr. J. C. Meyers, Sr., of Cincinnati, now read an interesting paper, describing deaths due to some disease, and entitled his paper "Is it a Vegetable Toxicum."

The essayist described several deaths in a single herd of cattle, in each of which death followed a certain train of symptoms, and ask the question as per the title of his paper.

Dr. W. C. Fair had had considerable correspondence with farmers, describing almost parallel cases, and he judged them caused by the feeding of improperly cured corn fodder.

Dr. Torrence asked if the disease was confined to one farm, and did the cows in calf abort.

Dr. Meyers had no report of the cows aborting, and said the disease was confined to one farm.

Dr. Meyers asks if any present had had any experience with cornstalk disease.

Dr. Cotton had heard much of the so-called cornstalk disease, but he had never had the pleasure of seeing it. He had been called to see three horses with very much the same symptoms as described, found two dead and the other nearly so; he had examined pasture and could find nothing wrong, only that the owner had thrown out seven or eight tons of partially spoiled ensilage. Held post-mortem and could not tell cause of death. His theory is that a fungi (ferment) propagates on the corn fodder, and it becomes poisonous.

Dr. Gribble had been called to see a herd of polled Angus cattle in which eight of about twenty died with symptoms similar to those described by Dr. Meyers. There were three herds in three different fields, the same creek watering all three; all were fed clover hay from the same stacks and corn and fodder from the same field, yet none died only in the one field; on examination the only difference to be found was that the field where the cattle died contained three piles of threshed timothy

hay—could not call them stacks as no care had been taken with it. The timothy when harvested had a short thick growth of green grass which was cut with the hay and was covered with a mold at threshing time. These stacks were burned and no cattle died afterwards.

Dr. Torrence: "Do not almost all cattle having impaction of rumen, or other stomach troubles, suffer with different degrees of paralysis due to reabsorption of grasses?"

Dr. J. D. Fair had seen two outbreaks of a disease showing similar symptoms, which were both due to feeding, bad ensilage, thrown about in feed troughs.

Some present thought the disease diphtheria, and tried to show the analogy.

The new veterinary bill, as it passed the Ohio Legislature, was now read and discussed, not one present being satisfied with its exactness, especially when all the good clauses of the original draft of the bill had been left out of it when it became a law; and that it was probably very little, if any; better than no law at all. A decision from the Attorney-General was read, wherein he stated that according to his rendition of the law the examiners would call any graduate before them for examination, no matter how many years he may have been in practice. This decision was thought to be very unfair, as none could see where, and in what section, the law conferred any such powers upon the board of examiners; so much so that the association decided to support any member in a legal test, if the board of examiners should undertake to assume such a power.

Dr. T. B. Cotton now read a paper entitled "Veterinary Dentistry."

This paper was well prepared, both from a scientific and practical standpoint, showing that the writer had exercised considerable care and study of the subject written on.

Dr. Torrence: "When there is a long molar tooth below, necessitating its being cut off, the opposite molar should be extracted."

Dr. Cotton: "No, do not do so unless you have to, because,

in my experience, you have so much trouble with the cavity by its continual filling up with food, so never extract unless they be loose."

Dr. Gribble had extracted lower molars when cutting off would have been better. In two cases continued filling with food prevented healing and ended by having fistula of jaw.

Dr. Beechy knew a case where molar was extracted more than a year ago, yet still a foul smelling discharge from the nostrils.

Dr. Cotton thought caries teeth affected the eye, and he had seen caries wolf teeth.

Dr. Derr had a wolf tooth which he had extracted from a five-year-old horse, and the tooth was sickle shaped and over three inches long.

Dr. W. C. Fair thought the teeth of cattle were sadly neglected, as he had found many; when the teeth were attended to they were relieved at once; he, in fact, believed that cattle suffered as much from disorders of the teeth as did horses, the same ages considered.

The general verdict sustained Dr. Cotton in not extracting molar teeth unless compelled so to do.

Meeting now adjourned to meet to-morrow morning at 8:30.

THURSDAY, Sept. 27, 1894.

Meeting called to order at 8:45 A. M., by President Dr. J. D. Fair.

Dr. H. Fulstow, of Norwalk, O., applied for admission to membership. He is a graduate of Ontario Class, 1892, and was unanimously elected, after which he thanked the association in a few well-chosen remarks.

S. G. Reed, having quit the practice of veterinary medicine, asked to withdraw from membership; the same was granted. Considerable correspondence was read, some of which was severely criticised, as the writer wrote of matters concerning the association, in which he showed himself ignorant of what he wrote about.

Dr. C. L. Chase now read an essay, "Value of Post-mortems." The writer plainly showed to every practicing veterinarian the great value of post-mortems, and should be taken advantage of much oftener than it is.

Mr. King, who claimed himself an expert on ridgling castration, made a few remarks in reference to his method, and the per cent. found of true ridglings. He stated about one in eight floated in the abdomen.

Dr. Gribble, who had had some experience in castration, was asked what per cent. he found floating in the abdomen, and his answer was, only four in fifty-four, so-called ridglings.

Dr. Derr had met with only three in sixty.

The Holmes County Fair was in progress, and all were invited to attend during the afternoon.

Dr. Derr offered a resolution that was supported by Dr. Cotton, viz., that the president and secretary be empowered to issue orders in the payment of all bills relating to this session.

The association then adjourned to meet in Columbus during January, 1895.

WM. H. GRIBBLE, D.V.S., *Secretary.*

MASSACHUSETTS VETERINARY MEDICAL ASSOCIATION.

The monthly meeting of the Massachusetts Veterinary Association was held on September 12, 1894, at 19 Boylston Place.

The members present were Drs. Becket, Burr, Towle, Howard, Labau, McKenna, Osgood, Parker, Winchester and Winslow. Honorary member, Dr. Stickney. The chair was taken by Dr. Burr at 7:45 P.M.

The minutes of the last meeting having been read, Dr. Winslow moved that they be accepted as read; seconded by Dr. Howard. Carried.

The secretary then read the report of the committee on tuberculosis. Dr. Winchester moved that the report be accepted; seconded by Dr. Osgood. Carried.

Dr. Winchester then said he had looked over report, and thinks it covers the ground; the points are well taken. He thinks it should be published in journals, and he sees no reason why it should not be adopted and published.

Dr. Howard thinks it is pretty complete, and should be published in the agricultural papers.

Dr. Burr then suggested that the report should be considered in parts.

Dr. Osgood was of the opinion that the matter of disinfection should be treated a little more fully.

After some further discussion Dr. Osgood moved that the report be printed and copies mailed to the members of the association, and the matter brought up at the next meeting; seconded by Dr. Stickney. Carried.

Applications for membership were then received from Dr. James T. Fisher, 98 Moreland street, Boston, Dr. Henry Lewis, Chelsea, and Dr. H. B. Hamilton, Albany street, Boston. The names of Dr. Lemuel Pope, Arlington Heights, and Dr. J. H. Walker, Taunton, were then brought up, and as no applications from them had been received, the secretary was directed to forward application blanks to them.

The Committee on Credentials then reported favorably on the names of Drs. Lewis and Fisher.

New Business.—Dr. Burr then called attention to the fact that members of committees are sometimes compelled to travel long distances to attend committee meetings, and he suggested that Dr. Paige be remunerated for expenses incurred in attending committee meetings in Boston. After considerable discussion the general opinion seemed to be that it was not advisable to establish a precedent by paying the expenses of those attending committee meetings.

Dr. Osgood then moved that this meeting be considered the regular September meeting of the association, and that the regular meeting of the association be held on the fourth Wednesday of each month; seconded by Dr. Labau and carried.

Dr. Osgood gave written notice that at the next meeting he

would propose an amendment to the Constitution to provide for special meetings.

Dr. Parker called attention to the meeting of the United States Veterinary Medical Association in Philadelphia, and asked that the association should appoint delegates to attend the Philadelphia meeting.

Dr. Osgood moved that all those attending the meeting should be appointed as delegates; seconded by Dr. Parker. Carried.

The matter of spaying cows was then brought up for discussion by Dr. Osgood reading a letter relating to the spaying of cows. He has been doing a good deal of it lately, and so far the results have been satisfactory, although the time has not been sufficiently long to give the matter a thorough test. He has spayed about forty cows. In his experience cows are apt to gain in flesh unless carefully watched, and where they gain in flesh and get fat, the feed should be dropped.

After some further discussion the meeting adjourned.

JOHN M. PARKER, *Secretary.*

MASSACHUSETTS VETERINARY MEDICAL ASSOCIATION.

The regular monthly meeting of the Massachusetts Veterinary Association was held at No. 19 Boylston Place, on Wednesday, October 24, 1894, at 7:30 P.M.

The members present were Drs. Bunker, Emerson, Howard, Labau, Osgood, Parker, Rogers, Winchester and Winslow. Dr. Winchester occupied the chair.

The minutes of the last meeting having been read and adopted, the chair called on Dr. Howard, as one of the delegates to the United States Veterinary Medical Association meeting, in Philadelphia, to make his report.

Dr. Howard made an interesting report of the meeting. He referred to the report of the Committee on Education to Dr. Hagar's paper on "Neurotomy" or "Neurectomy," and to the papers on "Tuberculosis" as being especially interesting. In

reply to an inquiry, he stated that the Comitia Minora recommended the expulsion of Drs. Lee and Becket, in consequence of their having sent out illuminated calendars. The association finally decided to call the attention of Drs. Lee and Becket to the matter, so that they might have an opportunity to defend themselves.

The meeting closed on the last day with a most enjoyable visit to the Veterinary Department of the University of Pennsylvania, to the hospital of Dr. Horace Hoskins, and to the Zoölogical Gardens, finishing with the dinner at the Colonnade Hotel.

Drs. Winchester, Osgood and Parker all reported having enjoyed the meeting very greatly.

Dr. Parker then reported for the committee on tuberculosis; after considerable discussion the report of the committee was accepted as one of progress and certain changes were advocated in the report.

The names of Drs. James T. Fisher and Henry Lewis were then voted on, and unanimously elected to membership, and the names of Drs. H. B. Hamilton and Leonard Pope were reported on favorably and laid on the table for action at the next meeting.

New Business.—The secretary then read a letter from Dr. Lee, resigning from membership in the association. Dr. Winslow moved that the resignation be accepted. Dr. Bunker moved an amendment "that Dr. Lee's resignation be laid on the table, and the secretary instructed to write to Dr. Lee, asking him why, in the event of his resignation not being accepted, he requests to be expelled." Seconded and adopted.

Dr. Osgood then brought up the matter of special meetings, and after some discussion Dr. Bunker made the following motion: that "special meetings can only be called by the president or upon written application of three or more members, or by vote of the association." Seconded by Dr. Osgood, and carried unanimously.

Dr. Osgood then informed the association that in consequence of the generosity of Messrs. Hemenway, of Boston, and

Morgan, of New York, Harvard Veterinary College is now enabled to do away with the subscription plan.

After some further discussion Dr. Bunker offered a resolution approving of their action, and by vote of the association the consideration of the resolution was laid over till the next meeting.

There being no further business the meeting adjourned till November.

JOHN M. PARKER, *Secretary.*

KEYSTONE VETERINARY MEDICAL ASSOCIATION.

A very interesting meeting of the Keystone Veterinary Medical Association was held November 13th at No. 3452 Ludlow street, Philadelphia, with President Lintz in the chair.

Those answering roll-call were Drs. Bridge, Cullen, Hoskins, Hart, Lintz, Rayner, Schreiber and Rhoads.

Drs. F. S. Allen and J. T. McAnulty were present as visitors. President Lintz appointed Drs. Hoskins, Bridge, Goentner, J. R. Hart and Rhoads as censors for the ensuing year.

On motion of Dr. Hoskins, the censors were instructed to carefully examine the names carried on the roll, and remove all delinquent and otherwise derelict members.

A very interesting paper was read by Dr. Hoskins, on "How We Might Best Spend the Meetings of Our Winter Session."

Twenty minutes of the next meeting will be devoted to the discussion of "Azoturia," and the members were requested to keep an accurate record of all cases treated by them during the current month.

The action of the City Board of Health demanding that all dairies from which milk was shipped to Philadelphia, be subjected to a tuberculin examination, and the stand the farmers were taking against it caused quite an animated discussion.

The meeting adjourned to meet December 11th.

W. L. RHOADS, *Secretary.*

The December meeting of the Keystone Veterinary Medical Association was held at No. 3452 Ludlow street, Philadelphia,

on the 11th, with Dr. Lintz in the chair, the following members attending: Drs. Bridge, Cullen, Hoskins, J. R. Hart, Lintz and Rhoads.

Drs. T. B. Rayner, J. T. McAnulty, F. S. Allen and J. O. George were present as visitors.

The censors reported having carefully examined the membership roll and recommended the removal of those delinquents who fail to respond upon receipt of secretary's notice of dues.

The name of R. S. Huidekoper, one of the first members of the association, was placed upon the list of honorable membership, and Dr. J. T. McAnulty was elected an associate member.

Dr. Hoskins read the proposed act to establish "The State Live Stock Sanitary Commission in Pennsylvania."

On motion the association adopted the bill as read.

Drs. J. B. Rayner and Schreiber, the essayists for the meeting, being absent, the discussion of "Azoturia" was now opened by Dr. Hoskins, who was followed by Drs. Cullen, Bridge, McAnulty, F. S. Allen and others, Dr. T. B. Rayner citing a case in 1853.

Dr. A. T. Sellers was appointed to report cases and W. L. Rhoads to read a paper at the January meeting.

W. L. RHOADS, D.V.S., *Secretary.*

The first meeting of the winter session of the Keystone Veterinary Medical Association was held at the office of Dr W. H. Hoskins, No. 3452 Ludlow street, Philadelphia, October 9th.

In the absence of President Goentner, Dr. W. L. Rhoads, of Lansdowne, was called to the chair.

The reading of the minutes of the last meeting was suspended, as the secretary was not present.

This being the annual meeting, the following members were elected as officers for the ensuing year: President, Charles M. Lintz, of Chester; Vice-president, James B. Rayner, of West Chester; Treasurer, Francis Bridge, of Philadelphia; Secretary, Warren L. Rhoads, of Lansdowne.

The election of directors was postponed till the November meeting.

CHARLES M. LINTZ, *Secretary pro tem.*

THE IOWA STATE VETERINARY MEDICAL ASSOCIATION
Held its seventh annual meeting at the Savery Hotel, Des Moines, on November 15th and 16th.

The meeting was called to order by the President, Dr. W. B. Niles, at 10 A. M. Roll-call by the Secretary, Dr. J. E. Brown, showed about twenty members present, consisting of Drs. Brown, Edwards, Heck, Hammond, Austin, Johnson, Morse, Lincoln, Niles, Miller, Paine, Stalker, Sayers, Starkey, Stewart, and others. Drs. Adams, Day, Geddes, White, McCarthy, McCall, Peters, Wake, and a few others were present as visitors.

Letters of regret were received from Dr. Kennedy, M. D., Secretary of the State Board of Health, from Dr. W. L. Williams of Montana, and from two or three others whose names are not at hand.

The President, in his annual address, called attention to several things seemingly of importance to the advancement of the profession. The following extracts show the tenor of the paper:

"Our Secretary has truly said, in his circular letter, that 'The veterinarian should be a sanitarian.' How many of us in the past have paid much attention to sanitary medicine? Very few, indeed. It is true that but few people ask for sanitary advice. Is not this condition largely the fault of the veterinarian? As he in many cases is not prepared to give such advice, and has not impressed his patrons as having a knowledge of sanitary medicine, is it any wonder that he is not thought of in connection with such matters?

"The future veterinarian *must be* a sanitarian; of all medical men he is best fitted for a sanitary officer, not only to guard the health of animals but the public health as well. Being more familiar than the human physician with comparative medicine, he better understands the animal plagues which are communicated to man, and thus better understands the laws necessary for their prevention. The question of sanitation is exceedingly important, not only from an economical standpoint

but on account of the danger to the public health. Tuberculosis in cattle has recently been shown alarmingly prevalent in many States, and well merits the attention it is now receiving. In this State the disease is, without a doubt, much more prevalent than is usually supposed, and should receive the consideration of all medical men and the attention of all who are interested in our live stock interests and the health of the people.

"With the improvement in the value of horses, which is already being manifested, and the widening field of the veterinarian's work, as shown by the increasing demand for meat inspectors, city veterinarians and other sanitary officers, we sincerely believe that the veterinarian capable of taking his proper position in the field of medicine has a good future before him. It seems to us that the demand for veterinarians with a more broad and liberal education, men capable of taking the advanced positions of the near future, should be a lesson for some of our colleges to enlarge their curriculum and in other ways improve their facilities.

"It is with some alarm that we view the starting of so many new colleges, which must, judging by the length of the college course, turn out 'horse doctors' rather than skilled scientific veterinarians.

"Have we not more to fear from the poorly educated man with his diploma than from the non-graduate? Many think we have. Would it not be well for us, as an Association, to raise our requirement for membership as high as those of the Missouri State Veterinary Medical Association, and thus stand hand in hand with that society in resisting this threatened innovation of empiricism?

"Would it not be well to put ourselves on record concerning army legislation? Last spring I wrote many of our Congressmen urging their support of the bill then in the hands of the Military Committee, and from most of them I received very encouraging replies. If we pass a resolution favoring such a bill, it may have some weight. If all the State associations would do this, it would surely help. Let us do our part."

The printing of the proceedings of the meeting, by the Association, was also advised.

The Secretary and Treasurer in his report also called attention to some of the questions discussed by the President, urging their importance. His report showed the Association in a prosperous condition financially and otherwise, the society having about seventy members in good standing.

The Board of Censors reporting favorably on the eighteen applicants for membership, they were duly elected. Many of these were present, and took part in the meeting.

The attendance of old members, and the number of veterinarians joining, was noted as being greater than for many years past.

The committee on legislation presented an instructive report explaining why desired legislation had not been secured. Although the bill introduced was only intended to regulate the title of the veterinarian, prohibiting non-graduates from assuming the title of the graduate, it could not be passed without amendments, which the committee could not agree to. Consequently, preferring no legislation to the passage of such an amended bill, it was not reported from the House committee to which it had been referred. It was found that many members of the Assembly feared the influence of the non-graduates in these localities, and could not be induced to favor any bill which seemed to prevent them from practising. It will thus be seen that legislation failed largely from lack of influence.

Committee on collective statistics made a brief report, stating some of the difficulties encountered in collecting satisfactory statistics, but recommending that the work be continued for another year, so that the results might be compiled and thus made as valuable as possible.

Committee on the securing of the 1895 meeting of the Missouri State Veterinary Medical Association reported that correspondence with Dr. Haskins revealed that the meeting would in all probability come West, and that any steps taken to secure it for Des Moines should be taken soon. Correspond-

ence with a number of Western members showed they were heartily in favor of holding the meeting in Iowa.

The Association, acting on this report, decided to take active measures to secure the meeting, and appointed a committee of three to undertake the work. An assessment of \$2.50 each was levied, to constitute an entertainment fund in case the meeting should be secured and the money needed.

Under the head of new business several interesting questions were discussed, and as suggested in President's address, committees on sanitation, publications, army legislation, and to consider advisability of preparing articles for the agricultural press, were appointed. Notice of an amendment to the constitution, raising requirements for membership as high as those of the Missouri State Veterinary Medical Association, to be acted upon at next meeting, was given.

The consideration of the above consumed the time of the morning and afternoon sessions. At the evening session, beginning at 8 P. M., two valuable papers were read, one on "Meat Inspection at the Abattoirs," by Dr. S. Stewart, Government Meat Inspector of Kansas City, and the other by Dr. G. A. Johnson, City Meat Inspector of Sioux City, on "Meat Inspection at the City Market."

Dr. Stewart's paper was illustrated by stereopticon views, and described fully the character of Government meat inspection. The kind of diseased meats most frequently encountered was emphasized and many other points of importance touched upon. This paper was both interesting and instructive, and shed much light on a subject at present little understood by a majority of American veterinarians.

Dr. Johnson's paper was also a valuable contribution to sanitary literature. It gave the ordinance of Sioux City providing for the inspection of meats and fruits, etc., and mentioned the utter impossibility of the ordinance being carried out to the letter, and gave the *modus operandi* as carried out by the writer. An opinion as to what city inspection should consist of was also given.

Both of the papers on meat inspection were very generally discussed, with much profit.

At the morning session, on the 16th, about thirty members were present. Dr. W. B. Niles, of the Veterinary Department, Iowa Agricultural and Mechanical College, read a paper on "Milk and Dairy Inspection." This was illustrated by showing views of some of the bacteria which find their way into milk, and also of two tuberculous cows apparently (judging by their appearance) in the best of health.

In this paper the inspection of milk as carried out in Iowa was described, and reasons given why a more careful and extended inspection should be made, together with what, in the opinion of the writer, this should consist of. On account of its importance the subject of tuberculosis was given prominence, and the results of personal work with the tuberculin test was given.

After a general discussion of the paper on Milk and Dairy Inspection, Dr. J. Miller, of Ottumwa, read an interesting paper on "Diseases of the Liver—Symptoms and Treatment."

In this paper the writer described concisely a number of cases of liver disease coming under his observation during several years' practice; symptoms and treatment were made prominent.

Quite a discussion followed, some thinking that if Dr. Miller had diagnosed his cases correctly they had overlooked the disease in their own practice.

In a paper on "Flatulent Colic, and Treatment with Trochar and Canula," Dr. Austin, of Newton, Iowa, described the prevalence of the colic through the rectal wall. Cases were mentioned where efforts to relieve by puncturing through the flank failed to relieve, but relief was quickly afforded by rectal puncture.

Discussion brought out the fact that repeated puncturing through the flank was not necessarily serious, and that abscesses did not often occur if instruments were sterilized before using.

Dr. A. B. Morse, of Des Moines, described as "an interesting experiment" a case in which strong haltness caused by

tibial neurotomy was subsequently cured by peroneo-phalangeal tenotomy. A general discussion of operations for relief of spavin lameness, followed.

Dr. C. M. Day, of Veterinary Department, Iowa Agricultural and Mechanical College, read a paper on "Some Parasites of the Horse." The writer stated that the practitioner, in his opinion, should know more than is generally known of parasites coming under his observation in his daily practice. The paper dealt with a few species obtained principally from animals destroyed at the college for dissecting purposes. Owing to lateness of the hour discussion was rather brief.

A voluntary paper was offered by Dr. A. R. Wake, of Veterinary Department of Iowa Agricultural College, on the tuberculin test for bovine tuberculosis.

In this the agent tuberculin was described, together with the *modus operandi* of its use, as carried out in quite a series of cases in which the writer had assisted. The reaction obtained in some cases—what should be considered a reaction—and the reliability of the test, were points discussed. As the subject of tuberculosis had been extensively discussed before, discussion following this paper was not lengthy.

Election of officers resulted as follows : President, J. Miller, of Ottumna ; Secretary and Treasurer, J. E. Brown, Oskaloosa ; Vice-president, W. H. Austin, Newton.

Committee on Resolutions reported the following, which were adopted unanimously :

WHEREAS, It is demonstrated that tuberculosis in cattle is widely distributed throughout this State;

WHEREAS, This disease can be communicated to mankind through consumption of the flesh of tuberculous cattle; and

WHEREAS, The disease can be communicated to mankind through consumption of the milk from tuberculous cattle; therefore,

Be it Resolved, That it is the sense of the Iowa State Veterinary Medical Association that the State Board of Health should immediately make such rules and regulations as in their best judgment will eradicate this disease from the herds of this State.

WHEREAS, Municipal meat and milk inspection is of very great hygienic importance; and

WHEREAS, The laws of Iowa bearing on this subject are very meagre and imperfect;

Therefore be it Resolved, That it is the sense of this Association that the Legislature-elect should enact a law providing for efficient meat and milk inspection for all municipalities in this commonwealth.

Before adjourning, it was decided to meet at the call of the President and Secretary.

Thus closed one of the most, if not *the* most, successful meetings in the history of the Association. This result is extremely gratifying, especially to those who were instrumental in making the meeting a success. While there is much work for the Association during the coming year we believe the enthusiasm of the members will insure its accomplishment.

VETERINARY MEDICAL ASSOCIATION OF NEW YORK COUNTY

The regular meeting of the Veterinary Medical Association of New York County was held on Tuesday, December 4, 1894, at eight o'clock, with the President, Dr. Huidekoper, in the chair.

On roll-call twenty-five members were present.

The minutes of the last meeting were read and approved.

Dr. Gill, as Chairman of the Board of Censors, reported favorably the names of Drs. J. Serling, W. Lellman and R. W. Hall.

He then reported in detail the financial condition of the association as follows, viz.:

Initiation fees and dues received up to December 3, 1894, \$291, and that there still remained due \$106, giving the names of the delinquent members.

The expenditures up to December 3, 1894, amounted to \$202.87, leaving a balance of \$88.13.

Moved and seconded that the report be accepted. Carried.

Moved by Dr. Cattanach, Sr., that all those who had not paid their initiation fees and dues be dropped from the roll.

Dr. Gill offered an amendment to that motion, that all delinquents be notified that if they did not settle on or before the next regular meeting, their names would be dropped from the roll.

Dr. Cattanach accepted the amendment, and it was seconded and carried.

The secretary then stated that he omitted to give the board the name of another member who was delinquent.

Moved and seconded that the correction be accepted. Carried.

Reading of papers was next in order, and Dr. Glover read a very interesting paper on "Canine Distemper," first taking up the disease and then the many complications that frequently take place.

Moved and seconded that a vote of thanks be extended to the essayist. Carried.

A very interesting discussion then followed, in which a majority of the members took part, after which the president closed the discussion by summing up the symptoms and treatment of the disease as he found it.

Dr. Neher's paper on "Veterinary Education" was laid over until the next regular meeting on account of the great amount of important business to be transacted.

Report of Committees on Certificates, Dr. Liautard, chairman. Dr. Liautard was absent, but wrote the president that he understood that the committee had been discharged.

After a discussion, in which Dr. Becket, a member of the committee, reported, it was moved and seconded that the committee be continued, and that they report at the next regular meeting for final action. Carried.

Committee on Revision of By-Laws, Dr. Robertson, chairman, reported progress. Moved and seconded that the report be accepted and the committee continued. Carried.

Committee on Change of Location, Dr. Robertson, chairman, Dr. Glover reported several places for holding the meetings and

the cost of each. After a discussion it was moved and seconded that the committee be continued and that they report upon other localities at the next meeting. Carried.

Committee on Charges, Dr. Neher, chairman, read a list of the charges adopted by the committee, several being left open for discussion. Moved and seconded that the report be laid over until the next meeting, for discussion. Carried.

Judiciary Committee.—Dr. O'Shea reported that they expected to have a bill to "Exempt Veterinarians from Jury Duty" passed at the next session at Albany, and that the committee would follow all bills relating to the profession, and that in the near future they would commence to prosecute illegal practitioners.

Moved and seconded that the report be accepted and the committee be continued. Carried.

Election of New Members.—Dr. Neher moved that the by-laws be suspended before the election. Carried.

Dr. Gill then moved that Drs. Serling, Lellman and Hall be elected by acclamation. Carried.

Election of Officers. Moved by Dr. O'Shea that the by-laws be suspended before the election. Seconded and lost.

Nominations then being in order, Dr. O'Shea nominated Dr. Huidekoper for president, Dr. Robertson for vice-president, Dr. Giffen for treasurer, and Dr. Ryder for secretary. No other nominations being made, it was moved and seconded that the nominations close. Carried.

Moved by Dr. Hanson that the by-laws be suspended during the election of officers. Seconded and carried.

Moved and seconded that Dr. Gill cast a ballot for the election of officers. Carried.

Dr. Gill cast a favorable ballot for their election.

New Business.—None.

The president then appointed as the Board of Censors for 1895: Dr. H. D. Gill, chairman, Drs. O'Shea, Hanson, Turner and Cattanach. Adjourned.

J. E. RYDER, D.V.S., *Secretary.*

INDIANA ASSOCIATION OF VETERINARY GRADUATES.

The sixth annual meeting of the Indiana Association of Veterinary Graduates was held in the parlors of the Hotel Anderson, Anderson, Ind., on December 11 and 12, 1894.

The meeting was called to order by the President, Dr. J. E. Cloud, in the chair.

There were present Drs. J. E. Cloud, Richmond, Ind., C. M. Stull, South Bend, Ind., F. W. Myers, Fort Wayne, Ind., F. A. Balser, New Castle, Ind., Lee Hoover, Richmond, Ind., O. L. Boor, Muncie, Ind., W. B. Wallace, Marion, Ind., J. W. Cook, Goshen, Ind., C. F. Bell, Kokomo, Ind., J. C. Rodger, Anderson, Ind., J. O. Greeson, Kokomo, Ind. Visitor, Dr. F. W. Anderman, Hartford City, Ind.

In the absence of the secretary, Dr. J. H. Honan, Hammond, Ind., on motion Dr. J. C. Rodger, was elected secretary.

The minutes of the previous meeting were read and approved.

The secretary's report was then read and accepted, also the treasurer's report was read and accepted.

The following gentlemen presented themselves for membership and were elected: Drs. H. J. Kannal, Rensellear, Ind., F. W. Anderman, Hartford City, Ind., J. W. Lefever, Warsaw, Ind., W. C. Clevenger, Union City, Ind., and G. R. Christian, Glens Valley, Ind.

The election of officers resulted in the following-named gentlemen being duly elected and installed for the ensuing year: Drs. J. E. Cloud, president; W. F. Myers, vice-president; O. L. Boor, treasurer; J. C. Rodger, secretary; C. M. Stull, W. B. Wallace and G. H. Roberts, board of censors.

The following committee was then appointed on arrangements: Drs. J. E. Cloud, W. F. Myers and J. C. Rodger.

The meeting then adjourned until 8 P.M.

Upon reconvening, a paper was then read by the secretary, written by Dr. H. R. Macaulay, of Indianapolis, on "The Treatment of Pneumonia," which was very ably written, and showed that the writer was conversant with the disease and how it should be treated.

This was followed by many remarks from the members on the methods that should be pursued on the treatment of this disease.

The meeting then adjourned until 8:30 P.M.

Upon reconvening, Dr. Lee Hoover was called on to read a paper on reports of some interesting cases, which was received by the members with a great deal of interest, and a great amount of discussion followed.

The meeting then adjourned to meet in Marion, Ind., July 9 and 10, 1895.

J. C. RODGER, *Secretary.*

PREScription.

AN ANTISEPTIC DUSTING POWDER.

Pick commends the following in place of iodoform :

B Bichloride of mercury, gr. $\frac{1}{6}$ to $\frac{1}{3}$;
 Boric acid, $\frac{3}{4}$ i ;
 Tannic acid, 3 ii ;
 Sugar of milk, $\frac{5}{4}$ ii.

The sublimate is first rubbed up thoroughly with the sugar of milk, and the other ingredients are added.— *Therapeutic Gazette.*

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